

KANSAS FARMER

ESTABLISHED IN 1863.
VOL. XXXIV. NO. 52.

TOPEKA, KANSAS, THURSDAY, DECEMBER 24, 1896.

SIXTEEN TO TWENTY
PAGES—\$1.00 A YEAR.

TABLE OF CONTENTS.

PAGE 818—AGRICULTURAL MATTERS.—Alfalfa, or Lucerne—Utah Experiments. Re-seeding Prairie Pasture. Answers as to Methods. How to Stretch Woven Wire Fences.

PAGE 819—THE STOCK INTEREST.—Characteristics of the American Wool Clip. The United States Wool Clip of 1896.

PAGE 820—IRRIGATION.—Strawberries. Irrigation in Michigan. Some Experimental Stations. Ripping Corn Fodder.

PAGE 821—THE APIARY.—Judging the Condition of a Colony Inside, by Outside Appearances. Wind-Breaks for Bees. Dead Bees Blocking the Entrances....Feeding Value of Kaffir Corn.

PAGE 822—THE HOME CIRCLE.—The Force of Love (poem). Two Christmas Eves.

PAGE 823—THE YOUNG FOLKS.—The Monster "Practicing" (poem). An Afterthought. A Christmas Fact. Portrait of a Lady. Had a Limit. Timely Precaution. The Man for the Hour. The Best He Could Promise. A Nameless Gift. On Christmas Morning. What He Put Up. Her Time of Joy. The Christ Day. The Way With All of Us.

PAGE 824—EDITORIAL—Its Standing Abroad. Col. Brigham for Secretary of Agriculture. Balance of Trade.

PAGE 825—EDITORIAL.—Program of Meeting State Board of Agriculture. Prices and Crops. Destroy the Gophers. The Oak Grange Farmers' Institute.

PAGE 826—HORTICULTURE.—The Kinds of Trees to Plant in Kansas. Preventives and Remedies for Peach Tree Borers.

PAGE 827—IN THE DAIRY.—Echoes From the Dairy Meeting. Gathered From Many Sources.

PAGE 828—Gossip About Stock. Publishers' Paragraphs.

PAGE 829—THE VETERINARIAN...Market Reports.

PAGE 830—THE POULTRY YARD.—Seasons and Diseases. Marketing Turkeys. Our Great Poultry Industry. Among the Poultry.

BREEDERS' DIRECTORY.

Cards of four lines or less will be inserted in the Breeders' 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.

HORSES.

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

CATTLE.

T. H. PUGH, Maple Grove, Jasper Co., Mo., breeder of HEREFORD CATTLE. Stock for sale.

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.

FAIRVIEW STOCK FARM.—Registered Short-horn cattle. 7th Earl of Valley Grove 11907 at head of herd. Young stock for sale. E. H. Littlefield, Newkirk, Oklahoma.

ENGLISH RED POLED CATTLE AND COTSWOLD SHEEP. Young stock for sale, pure-bloods and grades. Your orders solicited. Address L. K. Haseltine, Dorchester, Green Co., Mo.

NEOSHO VALLEY HERD OF SHORT-HORNS.—Imported Buccaneer 106655 at head of herd. Registered bulls, heifers and cows at bed-rock prices. Address D. P. Norton, Council Grove, Kas.

SWINE.

Holstein-Friesians, Cherokee, Duroc-Jersey swine. M. H. ALBERTY, Kansas.

K. N. FRIESEN, ALTA, KAS.—Proprietor of the Garden Valley Herd of Thoroughbred Poland-China swine. Selected from best strains. Stock for sale at all times. Write me. Mention FARMER.

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

CENTRAL KANSAS HERD OF THOROUGHbred Poland-China hogs. C. S. Snodgrass, Gait, Rice county, Kansas, breeds the best. Stock for sale now. Come or write.

OHIO IMPROVED CHESTER SWINE.—Pure-bred times prices. One hundred spring pigs at head times prices. Also a few boars ready for service. H. S. DAY, Dwight, Morris Co., Kas.

POLAND-CHINAS FOR SALE.—Twenty-five top spring pigs, gilts and boars. A few ramps of each of the following breeds: Cotswold, Shropshire and American Merinos. Also Scotch Collie pups. Address H. H. Hague & Son, Walton, Kas.

D. TROTT, ABILENE, KAS., headquarters for POLAND-CHINAS and the famous Duroc-Jerseys. Mated to produce the best in all particulars. Choice breeders cheap. Write.

SWINE.

BELMONT STOCK FARM—Cedar Point, Kansas. Berkshire and Poland-China swine, Mammoth Bronze turkeys and Barred Plymouth Rock and S. C. B. Leghorn chickens and Pekin ducks.

W. M. PLUMMER & CO., Osage City, Kas., breeders of Poland-Chinas of the best families. Also fine poultry. Pigs for the season's trade sired by five different boars.

PRINCETON HERD OF POLAND-CHINA SWINE contains the most noted strains and popular pedigrees in the U. S. Choice animals for sale. Address H. Davison & Son, Princeton, Franklin Co., Kas.

ASHLAND STOCK FARM—Will sell for the next thirty days, thoroughbred Poland-China boars and B. P. Rock cockerels at greatly reduced prices. No boom prices here. Give me a trial and I will surprise you with prices for quality of stock. Yours for business, M. C. Vansell, Muscotah, Atch on Co., Kas.

POULTRY.

HIGH-SCORING B. P. ROCKS, W. WY- and dots and Rosecomb B. Leghorns of the very best strains obtainable, for sale low. Score-card by Hewes or Emery with each fowl sold. P. C. BOWEN & SON, Cherryvale, Kas.

Barred Plymouth Rocks. All the leading strains. Thirty young cockerels and twenty-five pullets for sale. A 93-point bird at head of the harem. Eggs \$2 per setting of thirteen. S. McCullough, Ottawa, Franklin Co., Kas.

1896 Hatch Ready to Ship. I will continue to sell birds at from 50 cents to \$1 each until my stock is disposed of. Partridge Cochins, S. S. Hamburgs, Brown and White Leghorns, Barred and White P. Rocks, Light Brahmas, and cockerels of Buff Leghorn and Buff P. Rocks. Single birds \$1 each. My fowls have unlimited range and are hardy, well-matured and strictly first-class thoroughbred birds. A. H. DUFF, Larned, Kas.

LICE KILLER. Don't pay 50 and 75 cents per gallon for lice killer. I will send you a recipe for 50 cents to make it at a cost of about 25 cents per gallon. For killing lice by painting roosts, boxes, etc., it has no superior. The best disinfectant and disease preventive out. A. H. DUFF, Larned, Kas.

SWINE.

BERKSHIRES. H. B. COWLES Topeka, Kas. I want to close out my spring boars this month.

BOURBON COUNTY HERD BERKSHIRES. J. S. Magers, Proprietor, Arcadia, Kas. Correspondence invited. Satisfaction guaranteed.

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.

BERKSHIRES. We offer choice selections from our grand herd, headed by a great imported boar. New blood for Kansas breeders.

WM. B. SUTTON & SON, Russell, Kansas.

BLUE MOUND HERD BERKSHIRE SWINE. Herd boars Barkis 30040, Victor Hugo 41799. One hundred head. Young sows, boars and gilts for sale. Allen Thomas, Blue Mound, Linn Co., Kas.

WYNDALE FARM HERD. Registered Berkshires and B. P. Rock Chickens. Only the best stock for sale. Eggs in season. Correspondence solicited. M. S. KOHL, Furley, Sedgwick Co., Kansas.

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. I ship from Topeka. G. W. Berry, Berryton, Shawnee Co., Kas.

LARGE ENGLISH BERKSHIRES. Twenty boars, fifty sows for sale. Largest herd of registered Berkshires in Kansas. The 1,625-pound boar Longfellow W. 33611 at head of herd who, with his get, won more first premiums at Kansas State fair this year than any boar of my breed. Five herds Berkshires competing, won six first and three second premiums. Prices reasonable. Write for what you want. Also breed HEREFORD CATTLE. C. A. STANNARD, HOPE, KAS.

SWINE.

J. T. LAWTON (successor to John Kemp), NORTH TOPEKA, KAS., breeder of Improved Chester White swine. Young stock for sale. Also Light Brahma fowls.

Standard Herd of Poland-Chinas Ideal U. S. by Ideal Black U. S., Tecumseh Chief by Tecumseh 2d, at head of herd. A choice lot of U. S. gilts bred to Tecumseh Chief for sale; also some good U. S. males. Call on or address W. M. MAGUIRE, Haven, Kas.

PLEASANT VALLEY HERD REGISTERED POLAND-CHINASWINE Westphalia, Anderson Co., Kas. Breeder of high-class pedigreed Poland-China swine. Herd headed by Guy Wilkes 3d 12131 C. Guy Wilkes is now for sale, also fifty choice April pigs. Write. E. A. BRICKEY.

W. S. ATTEBURY, Rossville, Kansas, DEALER IN Chester Whites Exclusively. Stock for sale. Visitors always welcome.

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 Ft. Scott & Memphis R. R. Postoffice Lenexa, Kas. W. P. GOODE, Proprietor, Lenexa, Kas.

TOWER HILL HERD Registered Poland-Chinas. 175 head, 30 brood sows. Herd boars are Black Stop 10550 S., U. S. Butler 13388 S.; George Free Trade 21053 A., and a grandson of J. H. Sanders 27219 O. Young boars ready for service and bred gilts for sale. B. R. Adamson, Fort Scott, Kas.

Standard Herd of Poland-Chinas. L. NATION, Proprietor, Hutchinson, Kansas. The breeding herd consists of the best strains of blood, properly mated to secure individual excellence. Stock for sale. Visitors welcome. Correspondence invited.

LAWN RIDGE HERD Poland-Chinas. 130 head, all ages. 100 spring pigs, sired by Young Competition 15082 S., Kansas Chip 15083 S. and a grandson of J. H. Sanders. Write or come. J. E. Hoagland, Whiting, Jackson Co., Kas.

Mains' Herd Poland-Chinas Headed by the grand show and breeding hog, Moorish King, he by De Ef No. 13897 O. and out of Moorish Maid No. 75228 O. The sows represent all the leading strains and are heavily loaded with Corwin blood. Pigs by and sows bred to Moorish King for sale. Satisfaction guaranteed. James Mains, Oskaloosa, Jefferson Co., Kas.

Farmington Herd Poland-Chinas Twenty-five spring boars sired by Little Mc. 14992 S., he by Mc. Wilkes 9242 S.; Trinidad 30057 A., and Chief Kaniliska by Chief Tecumseh 2d 9115 S. All stock guaranteed as represented. D. A. Kramer, Washington, Kas.

POLAND-CHINA SWINE. We offer a fine line of brood sows, bred or not, as wanted, at prices in keeping with the times. Our gilts are the get of Upright Wilkes and J. H. Sanders Jr. We will also sell a number of our herd sows; they are bred and registered. Some choice sows bred to Klever M. and some to Medium Pride. We will also sell Upright Wilkes or J. H. Sanders Jr. A rare opportunity to get excellent stock at low prices. J. E. KILLOUGH & SONS, Richmond, Franklin Co., Kansas.

Clover Leaf Herd Poland-Chinas. We Have the Best. Nothing Else. J. H. Sanders Jr. 14053 S. 35089 O. heads our herd. Three of his get sold for \$865; entire get at sale averaged over \$200; get during his term of service exclusive of public sale brought over \$2,700. Thirty-eight pigs getting ready to go out. Among our 14 brood sows are Black Queen U. S. Corwin 29801 S., Silver Bar U. S. 30884 S., Black Queen Hadley 1st 36574 S., Annie Black Stop 38631 S. and Ruby Rustler 4th 36355 S. Write, or, better, visit the herd. G. HORNADAY & CO., Fort Scott, Kas.

ROYAL HERD Poland-China Hogs and Barred Plymouth Rock Chickens. My stock took first premium at the State fair this fall. Have a good line of hogs and chicks for sale. WARD A. BAILEY, Wichita, Kansas.

CATTLE.

IDLE WILD HERD SCOTCH SHORT-HORN CATTLE A choice lot of big bulls and heifers for sale. Also pedigreed and-China swine. Whiting, Jackson Co., Kas. Geo. A. Wat.

SHANNON HILL STOCK FARM OK, ATCHISON, KAS. for sale Bates and Bates-topped 18. Waterloo, Kirklevington, Filbess, Gwynne, Lady Jane and other fashionables. The grand Bates bull, W. some Duke with 116137 and Grand Duke of North Oaks 11th 115735 at head of the herd. Choice young bulls for sale now. Visitors welcome.

SWINE.

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.

Duroc-Jersey March Boars Large size, heavy bone, good colors, highly bred, all registered, ready for service, shipped for inspection. You see them before you pay for them. Describe what you want and don't fail to get description and prices. J. D. STEVENSON, New Hampton, Harrison Co., Mo.

DIETRICH & SPAULDING, Richmond, Kansas, Home of the Poland-China Prize-Winners. Don't be too late. Only a few choice boars left but prices remain right. Some fancy gilts now safe in pig to the prize-winner, Silver Chief. Don't miss this chance—only a few gilts bred to Noxall Wilkes this season. Write us soon.

Franklin County Herd Poland-Chinas. Twenty boars ready for service, also twenty sows for ready sale at prices to suit the times. Inspection and correspondence invited. E. T. Warner, Owner, Princeton, Kas.

WILLIS E. GRESHAM, Quality Herd Poland-Chinas, HUTCHINSON, KAS. Seven prizes World's Fair. Three on litter under 6 months. More than any breeder west of Ohio. Ten prizes Kansas State, twelve Oklahoma State, and four out of six in Texas in 1896. More than any single breeder this season. Darkness F. 73222 and Darkness F. 3d 23508, Bessie Wilkes 36837, and the sensational sweepstakes and first class winner of 1896. Bessie U. S. (Vol. 11 S. R.), one of the best sows living to-day. Darkness Quality 14801, Guy Unfortunate 29295, Darkness Wilkes (Vol. 11 S. R.), first in class in Kansas and Oklahoma and in herd in three States. Some good ones for sale, both sexes. Write me. WILLIS E. GRESHAM, Hutchinson, Kas. Box 14.

VETERINARY SURGEON.

DR. U. B. MCCURDY, Veterinary Surgeon. Graduate Ontario Veterinary college, Toronto, Canada. Can be consulted on all diseases of domestic animals at office or by mail. Office: 114 West Fifth Street, Topeka, Kas.

All for \$1, Postpaid! 12 Wm. Belt, 12 Brandywine, 12 Bissel STRAWBERRY PLANTS. We have a large supply of finest plants we have ever grown for spring trade of 1897, at lowest prices. Catalogue free. F. W. DIXON, Holton, Kas.

NEW MULE AND HORSE MARKET. 23d and Grand Ave., Kansas City, Mo.

We announce our entire removal to Twenty-third and Grand, where we will be found in future, ready to buy or sell mules and horses. SPARKS BROS.

We will remove our entire horse and mule business to Twenty-third and Grand Ave., about October 10. Highest cash price paid for horses and mules. All car lines transfer to Westport line, which passes our door. COTTINGHAM BROS

Other Stables of equal or greater capacity ready soon.

Agricultural Matters.

ALFALFA, OR LUOERN--UTAH EXPERIMENTS.

Bulletin No. 44 of the Utah Experiment Station reports the results of extended feeding experiments on (a) Yield and feeding value of early, medium and late cuttings of alfalfa; (b) Yield and feeding value of the first, second and third crops, and (c) Feeding value as compared with red clover, timothy, mixed hay, and alfalfa mixed with straw.

The trials (a) and (b) are thus summarized by the writer of the bulletin, A. A. Mills:

1. Steers, fed either the alfalfa with or without grain, made the most rapid gains on the early-cut and the lowest on the late-cut, or they stand as follows: Early-cut, 100; medium-cut, 77; late-cut, 68.

2. For both first and second crops, the early-cut was first in rate of gain, while for the first crop, the late-cut was better than the medium-cut, and for the second crop, the medium-cut is far the better of the two.

3. The food eaten per day was slightly the highest for the early-cut and lowest for the late-cut, standing as 100 for the early-cut, 99 for the medium-cut, and 85 for the late-cut.

4. Pound for pound, the early-cut was the best; the late-cut, second best, and the medium-cut poorest. They stand as 100 for the early-cut; 78 for the medium-cut, and 81 for the late-cut.

5. The early-cut yielded the most hay when weighed into the barn, the medium-cut coming second, and the late-cut last.

6. The early-cut contained the most moisture, and when all are reduced to the same moisture content, 12 per cent., which the hay contained when fed, the yield stands: Early-cut, 100; medium-cut, 93; late-cut, 90.

7. In amount of beef produced per acre the standing is: Early-cut, 100; medium-cut, 71, and late-cut, 71.

8. In yield of protein, a very valuable nutrient, the standing is: Early-cut, 100; medium-cut, 78, and late-cut, 82.

9. During the two weeks of budding and flowering there appears to be no additional growth; in fact, our results show a loss of eighty-two pounds per acre of dry matter during this period.

The same bulletin also reports the results of two winter feeding experiments to test the relative value of alfalfa, red clover, mixed hay, timothy, and alfalfa and straw. The following conclusions appear to be warranted from the trial:

1. In rate of gain per day the different foods stand as follows: First crop alfalfa, 100; second crop alfalfa, 75; third crop alfalfa, 110; all crops alfalfa, 91; red clover, 75; timothy, 97.

2. The food eaten per day varies about in the same order as the gains, standing as follows: First crop, 100; second crop, 97; third crop, 105; all crops, 100; red clover, 80, and timothy, 95.

3. Pound per pound, the good alfalfa proved equal to timothy, while in rate of gain it proved better.

4. A ration of alfalfa and straw, with grain, proved superior to one of alfalfa and grain.

5. Mixed hay and grain proved superior to alfalfa and grain, but not quite so good as alfalfa, straw and grain.

6. A ration with a wide nutritive ratio, 1 to 8.6, proved much better than one with a narrow nutritive ratio, 1 to 4.56, while a ration having a nutritive ratio of 1 to 4.81 proved better than either of the others.

7. The use of mixed fodders in the rations, in one case mixed hay, and in the other alfalfa and straw, appeared to have much more to do with the feeding value, than did the nutritive ratio of the rations. However, the ration that was nearest the Wolff's standard gave the best results.

8. Better results were obtained by making the ration wider than the standard by 2.6, than making it narrower by 1.44.

9. By feeding what straw the animals

would eat up clean, our foods rich in protein, alfalfa, bran and wheat, may be fed to good advantage, though the nutritive ratio be too narrow.

10. Where the rations contained but one class of fodders, legumes, the feeding value very closely followed the amount of protein in the ration; but when the rations contained any other fodders, mixed hay, timothy, or straw, the varying amounts of protein in the ration appeared to have little to do with the variation in feeding value of the ration.

The steers used in the experiment were shipped to Omaha in 1895 and 1896 and the weights taken at the experiment station barn and at Omaha. An average of the two shipments showed an actual shrinkage of but 4.5 per cent., while the shrinkage in the selling weight was but six pounds on a 1,200-pound steer, or but one-half of 1 per cent. Especial attention is called to this as buyers for the Eastern markets cut heavily on home prices in order to cover "shrinkage."

A copy of the above bulletin, giving all the details of the experiment, will be mailed free on application to Luther Foster, Director Utah Experiment Station, Logan, Utah.

Reseeding Prairie Pasture.

EDITOR KANSAS FARMER:—In order to learn how to reseed tilled land in Kansas, I wrote to Chancellor Snow and he referred my letter to Prof. C. C. Georgeson, of the Kansas Experimental Station farm. I enclose his reply in order that you may publish it in the FARMER. I also wrote Prof. Lamson-Scribner, who writes me that blue-stem seed cannot be obtained, except by gathering. I did not suppose it could be. He recommends fescue and oat grass. If you do not choose to publish Prof. Georgeson's letter, please return it to me. This letter answers the Oklahoma farmer, and will, no doubt, be of advantage to many others.

A. E. HARMON.

Bloomington, Ill.

A. E. Harmon, Esq., Bloomington, Ill.:

DEAR SIR:—Chancellor Snow, of the Kansas State University, at Lawrence, has referred a letter to me which you wrote under date of November 10, and in which you ask for information in regard to the best method of putting a certain tract of cultivated land in Sedgwick county into grass.

It is an extremely difficult matter to give you reliable advice on this subject. Tame grasses do not do well in that section. Blue grass is a failure, as, also, you have been told by others, as I learned from your letter. I have but little doubt but that the native blue-stem would do better than any other grass that you could put in, and my advice would be that you procure seed of that species and seed it early in the spring—in March if possible. That species of grass seed is not usually kept in stock by seedsmen and I could not tell you where to get it, but if you will drop a line to Professor Lamson-Scribner, Agrostologist, Department of Agriculture, Washington, D. C., and ask him if he can tell you where the seed can be had he can doubtless tell you, and his advice as to the kind of grass that is likely to do best there will be valuable.

If you desire to seed alfalfa, I see no reason why it should fail there, as you have been advised it would, provided that the soil is deep and not underlaid with hard-pan or rock within at least five or six feet of the surface. I would recommend you to sow your alfalfa in July, at some time when you can take advantage of favorable rains to start the seed. You will need about twenty pounds of seed to the acre, but you should bear in mind that alfalfa cannot be used for pasture for cattle; it is too risky; it is liable to cause them to bloat and die, but it is an excellent hay crop. We have, the past season, made six tons of hay per acre from a field of alfalfa here on the college farm.

Lastly, if you must have pasture and you cannot get blue-stem seed, I would advise you to sow a mixture of equal parts of orchard grass and English blue grass (*Festuca elatior*), not less than thirty pounds of the mixture to the acre, and I would further advise you, whatever

sow, to put the seed in with a shoe grain drill with force feed, cross drilling it, and putting half of the amount of seed each way. Broadcasted seed is not covered sufficiently to insure germination unless the season should be unusually favorable. Yours truly,

C. C. GEORGESEON.

Answers as to Methods.

EDITOR KANSAS FARMER:—Another letter has been mislaid by me, and I can recall only part of the questions. The inquirer lives in Mankato, Jewell county, Kansas, and the questions all relate to subsoiling and soil packing. A great many people write to me, and if they never hear from me they may conclude their letter has miscarried.

Jewell county has about twenty-two inches of rainfall annually, while this county has thirty-seven inches. The surface soil in Jewell county is the same as it is here, and perhaps the subsoil is also, but the great "Herd Book," the Kansas History of 1883, says the subsoil is a porous clay with top soil of about one foot in depth on the high lands. Our subsoil is not porous, but quite water-proof. If the Jewell county subsoil is porous I would not subsoil very deep—only deep enough to break up the plow pan at the bottom of the furrow.

Yes, a subsoiler can be made to attach to a common three-horse plow (one that will not take too much land when three horses are hitched to it), but it is quite a trick to get it just right and will demand patience and several changes. Such a subsoiler changes the center of draft on a plow, and will keep it from running in, or run it too deep, and can be corrected only by experimenting. If the subsoiler has too much suck, the plow will be thrown out of the ground and vice versa.

"Will a common harrow be enough to surface-pack the soil after subsoiling?" No; it should be rolled and harrowed. The object of harrowing is entirely different from what many suppose. If the soil is in large lumps the harrow will, perhaps, break them up into smaller lumps, but, as a rule, this is not the mission of the harrow. After the soil has been rolled, or floated with a clod-crusher, the surface will bake after a heavy rain, or the wind will blow it badly. The harrow pulls out the lumps and leaves them on the surface, where they can be reduced by the crusher again. The harrow covers up the fine soil that contains the soluble plant food and leaves the small clods exposed to the elements, and these clods also answer to prevent soil blowing, as they create eddies. When the clods have been worked down to the size of a walnut, the harrow can be dispensed with.

"Why does Campbell advise surface-packing after subsoiling? Why plow at all, if we are to pack after plowing?" Mr. Campbell's system is intended for the arid belt, and not for this part of Kansas. He does not advocate surface-packing, but sub-surface packing—that is, to pack the bottom of the furrow and leave the surface mellow and full of creases. The object of plowing and subsoiling is to loosen the soil by separating the soil grains. The fresh-turned furrow leaves the soil higher than before, and a cubic foot of fresh-plowed land contains more space for water to enter. If a flood comes, the amount of water that will enter this loosened up soil, would put it in proper condition, but, as a rule, this does not occur, and the spaces are so large and contain so much air that capillarity is destroyed. Soil that has been packed will lose more water by evaporation than soil that has been simply harrowed, and this is the desired condition, but the evaporation must be checked by the surface mulch, and evaporation allowed to take place only through the plants. If we did not plow at all, the roots of the plants would suffer for air and moisture. Simply to disc the surface, or use the screw pulverizer, will not do.

The Perine subsoiler is almost invaluable on the farm. All dead furrows can be made friable by it, and in a berry patch, or grapeery, where the turning of a furrow will cause ridging or covering up, the subsoiler can be

Well Satisfied with Ayer's Hair Vigor.

"Nearly forty years ago, after some weeks of sickness, my hair turned gray. I began using Ayer's Hair Vigor, and was so well satisfied with the results that I have never tried any other kind of dressing. It requires only an occasional application of



AYER'S

Hair Vigor to keep my hair of good color, to remove dandruff, to heal itching humors, and prevent the hair from falling out. I never hesitate to recommend Ayer's medicines to my friends."—Mrs. H. M. HAIGHT, Avoca, Nebr.

AYER'S Hair Vigor

Prepared by Dr. J. C. Ayer & Co., Lowell, Mass.

Take Ayer's Sarsaparilla for the Complexion.

used and the soil thoroughly loosened to almost any depth without changing the lay of the surface. If a field is clean, it need not be plowed, but the subsoiler run every two feet, followed by a float, then a harrow to pull up the fine clods, will put it in nice condition for a crop.

The question about the best style of cultivator, I will answer at length later on, as the latest improved machines actually reduce the cost of cultivating such narrow crops as potatoes to half the cost of the present way, radically reducing the cost per bushel to raise them.

The best corn I ever have grown, was on worn-out soil that would not produce over fifteen bushels per acre. I listed with two horses, followed by the subsoiler drawn by two more, then out on the ridges, and subsoiled again, running six inches below the lister, and the two horses walking on the ridges. A one-horse drill was drawn by two horses that walked on the ridges, and the corn planted one kernel in a place, a foot apart. Where corn follows potatoes, that have been dug by a lister-shaped digger, one listing can be dispensed with, if the potato rows are far enough apart.

CLARENCE J. NORTON.

Morantown, Kas.

How to Stretch Woven Wire Fences.

EDITOR KANSAS FARMER:—Some time since I saw in your very valuable paper an inquiry as to how to stretch a woven wire fence, with light center and heavy selvage, intended to take the strain. I had the same trouble at first, but this is the way I did: I took a piece of 2x4, as long as the fence is wide (hard wood is best), and following a cross-wire down, put a staple at every twist and selvage; fasten a common trace-chain at top and bottom and fasten your stretcher to the chain, shifting the stretcher until the pull is just where you want it. It is quick done and well done.

Your subscriber, in telling how to boil his wagon wheels, left out the most important point in the job—that is, to soak your wheels well in water, and then boil. The wetter the better, as the hot oil displaces the water. Run the wheels three or four weeks, clean well and then paint, as the paint will not set well on a freshly-boiled felloe.

W. A. B.

Lyndon, Kas.

"BROWN'S BRONCHIAL TROCHES" are unequalled for clearing the voice. Public speakers and singers the world over use them.

Kalamazoo, Mich., is famous for celery—also as the home of Thos. Slater, whose advertisement appears on page 15.

The Stock Interest.

THOROUGH-BRED STOCK SALES.

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

JANUARY 20, 1897.—D. A. Kramer, Poland-Chinas, Washington, Kas.
 FEBRUARY 1, 1897.—Risk & Gabbert, Poland-Chinas, Weston, Mo.
 FEBRUARY 2, 1897.—B. R. Adamson, J. M. Turley and G. Hornaday & Co., Poland-China brood sows, Fort Scott, Kas.
 FEBRUARY 9, 1897.—Kirkpatrick & Son, Connor, Kas., W. P. Goode, Lenexa, Kas., Poland-Chinas.

CHARACTERISTICS OF THE AMERICAN WOOL OLIP.

By Joseph Walworth, Pacific Mills, Lawrence, Mass.

Last year I thought that Utah wool had improved in staple over its former frowsiness and looseness of fiber, but there is plenty of room for further improvement in the same direction. The medium grade of combing or staple wool in all the Territories is only a small per cent. of the wool grown. The great bulk is fine and short and only adapted to woolen manufactures, and not suitable for worsted purposes. This is the trouble with our domestic wool; it is nearly all what we call clothing wool; in consequence, it sells for a much less price than it would if it had greater length and strength of staple. I have seen crosses of the Shropshire breed with the Merino where the wool was larger-bodied and not so fine, and had more staple and was more salable than the fine, loose, clothing wool that Utah generally raises. I have seen a Utah wool said to be a cross between a Cotswold and Merino; the wool was sound and of good staple; the result seemed very good, so far as the wool went; still, it seems to me a very wide cross. I think there is more safety in a cross between a Shrop and Merino or Leicester and Merino. There is one thing sure; Utah wool can be improved by crossing with English breeds of sheep; it would improve the staple, give us more of the medium grade of wool, and eradicate the kemp.

Wyoming raises good, sound-stapled, fine wool, but usually very fine, and a wool that wastes very much, shrinking 70 to 75 per cent. and sometimes more. Of course, fine wool is wanted, and Wyoming raises a good quality of wool. I think the soil and verdure of Wyoming are well adapted for sheep-raising; I am judging from the wool. I have said that the staple was good in Wyoming wool. I mean that whenever you find staple it is almost sure to be sound and strong. But Wyoming clips vary very much as to the per cent. of staple they will yield. I have known them to yield from 10 per cent. up to 60 per cent. Last year we had a clip that yielded 75 per cent. of staple wool; the owner, a Scotchman, had imported blooded sheep to cross with the native Merino sheep. Thus we plainly see there is a great field for improvement in Wyoming.

Montana perhaps raises the best wool of any of the so-called Territory States, but these wools can be improved a good deal as to staple. I know they have crossed the Merino with the Shrop and other breeds, but they could profitably continue it to a still greater degree, as medium staple and medium clothing Territory wools are in short supply, and the country is flooded with short fine wool.

What I have said above applies to all the Territories. Of course such States as California and Kansas ought not to try to raise staple wool; they cannot do it successfully with their soil and climate. The Merino is undoubtedly the best sheep for them.

The introduction of Australian wool during the last two or three years has been a revelation to many American manufacturers. They have received the wool all combing—no dung, no skirts, no strings, no britch, no stuffings, no chaff, but only a sort. All above "off sorts" are packed and sold separately as skirts, seedy, etc.

All the Territories and States which grow fine Merino wools have to compete with Australia and New Zealand, which now grow more than 600,000,000 pounds of wool per year, and with Argentine, where they raise, say, 400,000,000 pounds of wool per year. In New Zealand, and now in Australia to a less

extent, and also in the Argentine, they are crossing the Merino sheep with English breeds, such as Lincoln, Leicester, Shrop and Downs, in order to meet the great demand for long wools. New Zealand has for a long time raised a deal of cross-bred wool, and even pure English breeds not crossed at all with Merino. So that New Zealand raises pure Merino, three-fourths Merino, half blood, quarter blood, and pure English; and the demand has been very great for New Zealand cross-breeds especially. I think New Zealand is the only country that can beat England in raising long combing wools. They are mellow and softer, and they come to the market without dung, or strings, or britch, or skirts, or chaff, and are simply a matching; and, strange to say, people buy them readily, and after they have once used them, they want them again.

Argentine is going into the cross-bred business now on a large scale, for they find the wools sell better; and, besides, they raise a mutton sheep, as in New Zealand, which sells for more money than a Merino sheep.

Of course, I do not mean at all that the West go to raising combing wools and do away with the pure Merino breed of sheep. But I do mean that Utah, Wyoming, Montana, and other States that now raise fine Merino wools can improve them in staple and body of wool by judicious crossing, and make their wool more valuable and more salable.

I will now speak about what we call combing wools. Valley Oregon or Willamette Valley wools have improved a great deal over their former thick-bottomed, frowsy, and nolly condition. They are better stapled, and clearer grown, and better put up than formerly. But they need to continue to improve in the same line. They need more English blood—of the Cotswold or Leicester, or similar breeds to bring the wool up to a free, clear staple. If, in putting their wool up, they left the dung balls and stuffings in Oregon, they would be quite likely to receive as much money back for their wool as they get now, with all these things in.

Michigan has latterly introduced the Shrop breed, and I think to a great advantage. Their quarter combing wools are about equal to Missouri wool in value, only Michigan wool contains sadly too much chaff, which is a great drawback to a ready market.

Kentucky has ranked for many years as one of the best States for raising good combing wools. They early introduced good breeds of English sheep of the Cotswold, Leicester and Down classes, and raised very good long combing wool and good mutton sheep; but of late years they seem to have gone more into the Down breed, and their wool is finer and of shorter staple than formerly. A return to the breeds which give longer stapled wool would be a benefit to themselves, as well as to manufacturers. Southern Kentucky wools have deteriorated very much; the wool is shorter and more frowsy, and kempy. I think they have crossed with the small inferior sheep of Tennessee. They ought to introduce more of the Cotswold, or Leicester, or Shrop, or similar breeds, bring up the size of their sheep, and increase the length of staple and size of fleece, for their own profit, as well as the benefit of the wool industry. There is probably no soil in America that can raise better wool than Kentucky, if they will keep up the breed of their sheep, and kill off the old ones. Kentucky is specially adapted for keeping the English breeds of sheep.

Indiana and Missouri rank only second to Kentucky, and that is mostly due to the fact that they raise wools of heavier shrinkage. The wools in these two States are practically as good as those of Kentucky, when clean, but on an average they lose more in sorting and cleansing. The same remarks made regarding the improvement of Kentucky wools apply to those of Indiana and Missouri.

West Virginia wool is the cleanest, and shrinks less than any, although the wool, when clean, is not so good as that of Kentucky or Indiana. A few years ago West Virginia wools ran off in breed very much, and became short, frowsy, and kempy; but later they in-

duced English breeds of sheep, and improved wool very much indeed. I am of the opinion they still need to bring in new blood of the long-wool type. They have nearly eradicated the kemp. These long-wool sheep, or crosses with them, increase the weight of mutton, as well as the size of the fleece, and no wools fetch a better price than good combing wools.

Ohio and Pennsylvania have always ranked as our greatest and best wool-growing States, and do yet. I do not wish to make any special remarks about them. I will only make one other general remark, and that is about the scarcity of coarse combing wool raised in the United States. I do not think the whole country raises enough long combing wool, or braid, and common wool, as it is called, to supply the usual American demand for more than one month in the year. Such wools have to be imported from Canada, England and Ireland.

The United States Wool Olip of 1896.

By S. N. D. North, Secretary, in Bulletin of the National Association of Wool Manufacturers, September, 1896.

We present below our annual estimate of the wool clip of the United States for the year 1896, in the preparation of which we have been engaged for several weeks in an extensive correspondence with growers, dealers and manufacturers throughout the country.

Unusual difficulties have attended the making of the estimate of the wool clip of 1896. The demoralized condi-

Pure

Blood means sound health. With pure, rich, healthy blood, the stomach and digestive organs will be vigorous, and there will be no dyspepsia. Rheumatism and neuralgia will be unknown. Scrofula and salt rheum will disappear. Your nerves will be strong, your sleep sound, sweet and refreshing. Hood's Sarsaparilla makes pure blood. That is why it cures so many diseases. That is why thousands take it to cure disease, retain good health. Remember

Hood's Sarsaparilla

Is the One True Blood Purifier. All druggists, \$1.

Hood's Pills cure Liver Ills; easy to take, easy to operate. 25c.

Mr. Walworth's opportunities for studying the characteristics of our domestic wools are unexcelled, and the growers will find it greatly to their advantage in the future to give careful heed to his suggestions. (The communication referred to is given on this page of the FARMER.)

Important to Breeders.

Every one interested in improved stock should have the *Breeder's Gazette*, of Chicago, as well as the *KANSAS*

Wool product of the United States, 1896.

States and Territories.	Number of sheep, April 1, 1896.	Average weight of fleeces.	Wool, washed and unwashed.	Per cent. of shrinkage.	Scoured wool.
Maine	251,071	6	1,506,426	43	858,663
New Hampshire	84,149	7	589,043	58	247,398
Vermont	176,103	7½	1,320,773	60	528,309
Massachusetts	46,653	6	279,918	45	153,955
Rhode Island	10,692	6	64,152	44	35,925
Connecticut	33,415	6	200,490	44	112,275
New York	863,212	6	5,179,272	52	2,486,051
New Jersey	43,601	5	218,005	48	113,302
Pennsylvania	804,104	5½	4,752,572	53	2,233,718
Delaware	11,483	5½	63,211	46	24,134
Maryland	124,429	5	622,145	48	323,515
Virginia	401,276	5	2,006,380	43	1,143,637
North Carolina	332,084	5	1,660,170	45	913,063
South Carolina	69,977	5	349,985	45	192,492
Georgia	84,574	4	1,386,296	40	831,777
Florida	63,835	4½	421,357	42	244,387
Alabama	248,067	4½	1,054,285	42	611,485
Mississippi	310,285	4½	1,396,282	45	707,955
Louisiana	137,190	5	685,950	50	342,975
Texas	2,911,983	6½	18,927,955	70	5,678,387
Arkansas	179,901	6	1,079,406	60	431,762
Tennessee	416,614	4½	1,874,763	45	1,031,120
West Virginia	477,719	5½	2,627,455	48	1,366,276
Kentucky	806,864	5½	4,437,752	38	2,751,406
Ohio	2,633,410	5½	13,825,403	50	6,912,702
Michigan	1,438,891	6½	9,112,976	53	4,283,099
Indiana	692,589	6	4,155,534	45	2,285,544
Illinois	669,469	6½	4,351,549	50	2,175,775
Wisconsin	744,928	6	4,469,568	50	2,234,784
Minnesota	425,803	6	2,554,818	55	1,149,608
Iowa	547,618	6½	3,559,517	62	1,352,620
Missouri	742,199	6	4,453,194	50	2,226,597
Kansas	253,222	8½	2,152,387	69	667,240
Nebraska	187,612	8½	1,594,702	69	494,358
California	2,789,967	7	19,179,769	65	6,712,919
Oregon	2,486,247	8	19,889,976	69	6,165,892
Nevada	523,946	7½	3,929,595	68	1,257,470
Colorado	1,258,373	6½	8,494,018	68	2,718,065
Arizona	731,615	8	5,852,920	72	1,638,817
North Dakota	349,393	6	2,096,358	63	775,652
South Dakota	312,561	6	1,875,366	63	693,885
Idaho	973,402	7½	7,300,515	68	2,326,165
Montana	2,969,657	7½	21,530,013	66	7,320,204
New Mexico	2,595,652	4½	12,329,347	54	5,671,500
Utah	1,902,516	6	11,415,096	66	3,881,133
Washington	732,143	7	5,125,001	70	1,537,500
Wyoming	1,296,134	8	10,369,134	68	3,318,123
Oklahoma	21,987	7	153,900	67	50,790
Total	36,464,405	6.38	232,474,708	60.7	91,284,379
Pulled wool			40,000,000	40	24,000,000
Total product			272,474,708		115,284,379

tion of the seaboard markets has prevented the wool from coming forward as early as usual, and in consequence we have not been able to receive from dealers and manufacturers as much assistance as heretofore regarding the weight and shrinkage of fleeces. As a partial offset, the growers to whom our circular letters are sent have been more prompt and careful than heretofore in returning explicit information. There exists more than the usual disposition among the growers of wool and the inland handlers of wool to question the accuracy of the Agricultural Department estimate of the number of sheep. From all quarters, except Montana and Idaho, we have received communications in which the department figures are called to account. Without expressing any opinion of our own on this point we accept these figures as the basis of our own estimate, as heretofore. We commend to careful perusal the communication from Mr. Joseph Walworth, the veteran wool-buyer of the Pacific Mills, printed in this issue of the bulletin.

FARMER, which we furnish for the price of one—both papers one year for only (\$2) two dollars; or we will supply the *National Stockman and Farmer*, of Pittsburgh, Pa. (the best general farm and stock journal in this country, price \$1.50), and the *FARMER*, for \$1.50. Send for sample copies to the papers direct, and save money and get a big benefit by sending your subscription to *KANSAS FARMER*, Topeka, Kas. No progressive farmer or breeder can afford at this low price to be without this great trio of farm magazines.

Tours in the Rocky Mountains.

The "Scenic Line of the World," the Denver & Rio Grande railroad, offers to tourists in Colorado, Utah and New Mexico the choicest resorts, and to the trans-continental traveler the grandest scenery. The direct line to Cripple Creek, the greatest gold camp on earth. Double daily train service with through Pullman sleepers and tourists' cars between Denver and San Francisco and Los Angeles.

Write S. K. Hooper, G. P. & T. A., Denver, Col., for illustrated descriptive pamphlets.

Thos. Slater has a message for every man on page 15.

Irrigation.

Conducted by HON. M. B. TOMBLIN, Goodland, Kas.

Strawberries.

One of the crops specially adapted for cultivation by the small irrigator in western Kansas is strawberries. It is doubtful if the farmer having only a small water supply can receive as large returns from so small a space devoted to any other crop.

At Tribune, in Greeley county, Editor Tilleux, of the *Western Homestead*, pumping water 150 feet, has nearly half an acre in strawberries, and has made a grand success in their cultivation. I do not have at hand the amount of profit thereon, but it is extremely satisfactory to Mr. Tilleux.

Near Hoxie, in Sheridan county, J. C. Hoffaditz, pumping water 135 feet, has a bed of berries, possibly thirty-five by seventy feet, from which he has sold the past two or three years \$50 to \$75 worth each year.

For a family of five persons, where the water supply is quite limited, select a piece of ground about twenty feet square, and thoroughly enrich with manure from the hen-house. Make the selection as near the reservoir as possible. If on the south side so much the better. The plants require a large amount of water while bearing, and must be where it can be readily applied. Make the plat perfectly level and around the outside throw up a check or wall about three inches high. It is necessary that the ground be perfectly level, as the bed will be flooded at each irrigation, and the plants must be on a level, so that, when fruiting, a thorough irrigation will be possible without wetting the berries. Put out the plants in the spring. Secure them from as near home as possible, any of the standard medium or late varieties, being careful, of course, if a pistillate variety is selected, to plant at least every third row with a perfect flowering kind. Mark out the plat of ground in furrows about two feet apart, down which run a small stream of water. The first afternoon after receiving the plants, while the water is still in the furrow, put them out, about one foot apart in the row, covering the roots with moist soil from between the rows. The following day, with a fine rake level the ground until it is perfectly smooth, and the chances are, if the vines were fresh when put out, not a plant will be lost.

Until the plants have sent out runners and pretty well covered the ground, furrow irrigation will give better satisfaction, and probably not until fall will it be necessary to flood the bed. Of course, the ground should be cultivated after each irrigation, and no weed permitted to grow.

As soon as the ground commences to freeze, cover to the depth of about three inches with litter from the hen-house. During the winter, if dry, irrigate once or twice, in order that life may be made miserable for the insect pests which have very likely selected this place for winter quarters. Irrigate early in the spring and then no more until the plants are in fruit. Irrigate by flooding, and be careful not to let in enough water to cover the ripening fruit. With frequent applications of water the amount of fruit that can be picked from this small plat is surprising. After the vines are through bearing, rake off the litter and scatter several bushels of fine hen manure over the plat. Freely irrigate during the summer, allowing the plants to mat all over the ground. With plenty of water and fertilizer the plants thrive very close together—indeed, seem to protect each other, and not until the third year will it be necessary to spade up a strip, two feet wide and about the same distance apart, after the crop has been gathered, allowing the vines to cover the spaded strips with new plants.

There is no reason why every farmer in western Kansas who has an irrigating plant should not grow at least enough berries to supply the wants of his family.

Irrigation in Michigan.

The general idea of irrigation is, that it is only adapted to the arid or semi-arid regions, but it is being demonstrated, by experiments conducted in various parts of the United States, that even under the most favorable conditions of rainfall received, irrigation not only increases the quantity but also the quality of the yield. At the Michigan State Agricultural college, two plats of ground were reserved, one to receive only the natural rainfall, the other to be irrigated. In every instance the plats not irrigated were given the advantage in soil and location, if there was any. These plats were planted alike and received the same care. Of the cabbage, the Early Jersey Wakefield on the irrigated plat made a gain of 11,325 pounds per acre, and the Henderson Early Summer a gain of 21,959 pounds, or an average gain per acre, at half a cent per pound, of over \$75. The tomatoes gained 200 bushels per acre by irrigation, and, at 25 cents per bushel, would net \$50 per acre, or in this instance over five times the expense of applying the water. Snap beans showed a gain of 300 bushels and early peas 100 bushels per acre. A part of the irrigated plat of potatoes received two applications of water and the other four. The former made a gain of 50½ bushels and the latter 129½ bushels per acre more than the unirrigated plat.

L. R. Taft, Professor of Horticulture of the Michigan college, says of this experiment: "Particularly in the case of beans, peas and cabbages the increase in the quality was nearly as marked as in the quantity. Similar results have been obtained by several of the experiment stations, and in many instances market gardeners and fruit-growers who have practiced irrigation have made even a better showing."

Some Experimental Stations.

The Burlington Railway Co. has established, at various places along its line of road in Nebraska and at Oberlin, Kas., experiment stations, which are to be conducted on the theory that the rainfall is sufficient for crops the average season, and with proper tools the soil can be prepared so as to receive the rainfall and retain it for plant life, and not permit a large part of it to run off or evaporate.

The average rainfall in the vicinity of Oberlin, as near as can be determined, is between twenty and twenty-five inches, an amount barely sufficient, under the most favorable conditions, if it was all saved, to produce a full crop of small grain or corn.

The trouble with the theory of storing the moisture in the soil, is that the most favorable condition of the ground or retaining the rainfall is one which makes it most difficult for it to be absorbed, and unless the rainfall comes under the most favorable conditions, and not as it usually does come, more of it will run off than under the usual system of cultivation. You cannot have your cake and eat it. Neither can you place a dust blanket over your field to prevent evaporation and at the same time have it in the most perfect condition to receive the rainfall. There is bound to be a waste somewhere, and the trouble is we have no rainfall to waste.

While it is probably true that the rainfall is sufficient to produce good crops every year, if evaporation could be prevented, but evaporation is an element we cannot eliminate. We may, to a large degree, prevent evaporation from the soil, but we cannot prevent it from the plant. It is estimated, from experiments conducted at an Eastern agricultural college, that an acre of corn will give off by evaporation thirty-six tons of water; probably in western Kansas, where the air is so much drier, a very much larger amount, and until we can, by some means or other, supply moisture to the hot, dry winds which sweep over our fields so destructively, there is little hope that any system of cultivation will make profitable the growth of cereal crops to the farmers of western Kansas.

Mr. Otto Kuehne, proprietor of the Topeka vinegar works, has secured from the Santa Fe Railway Company

a low rate, which will enable him to ship in, for his canning and pickle works, vegetables grown by irrigation at Garden City. Mr. Kuehne says: "For the last few years I have tried in vain to persuade Shawnee county people to plant enough vegetables to keep our works going, and now, after having despaired of success, I have concluded to look elsewhere. But the greatest trouble is the lack of irrigation to insure an abundant yield. Most vegetables are of such a delicate nature as to be spoiled by a few days of drought and hot sun. If the gardeners along the Kaw valley would prepare to irrigate in case of an emergency, which they could do at small cost, they could do a thriving business furnishing us with vegetables, berries and small fruits."

Ricking Corn Fodder.

EDITOR KANSAS FARMER:—A reader of the FARMER writes me as follows, from McPherson county:

1. Would you please give your method of stacking corn fodder?
2. Do you think corn fodder good feed for milch cows, if fed alone?
3. How large do you make your bundles, and what do you use to top ricks with?

While the writer perhaps expected me to answer his questions privately, I will answer them through the KANSAS FARMER, and perhaps help others out of the same difficulty, as I am sure that our farmers can stand much education on this question.

To build a rick, I begin by laying a course of bundles on the ground, the same way as I rick wheat. The only difference between ricking wheat and fodder is, that in ricking the width of the rick is gauged by the length of the fodder, and the rick should only be made the width of two lengths of fodder, allowing the tops of bundles to over-lap about one-third their length. Always begin layers at the opposite end from the one where you expect to begin feeding on, as, when ricked, one should feed from end of rick and not from the top, and when we begin our layers at the opposite end the bundles can be taken from the end without trouble in feeding. Lay outside layers, then fill the middle. Do not attempt to build round the ends, but lay a bundle down at the end, take several stalks, draw them into the rick, then lay the next bundle on these stalks. This will keep the end or outside bundles from falling out, and one can build the rick up square without trouble. Build in this way, keeping the rick as solid as possible until it is as high as you want it, keeping the sides straight up. When putting the last layer on top, draw the bundles in about a foot farther than the next course below it, then lay down two bundles side by side lengthwise of the rick; lay the third bundle on the first two; against these set your top bundles at an angle of, say, 45 degrees, setting one first on one side then on the other, allowing the tops to cross or interlap. This will hold them from blowing off, and is all the top the rick needs. I make my bundles just large enough so they can be conveniently handled with a fork.

Yes, I consider well-cured corn fodder, cut when at its best, as good rough feed as grows out of the ground for milch cows, or for any kind of stock, for that matter. For milch cows it wants to be balanced up with grain of a nitrogenous character, like oats, wheat bran or oil meal. When farmers once learn the true worth of corn fodder we shall see less of this valuable feed standing in the fields utterly wasted. Millions of dollars worth of feed is allowed to go to waste in the stalk fields of Kansas every winter. Hard times for the farmer! Yes; how can it be otherwise, when one-third of the feeding value of our corn crop is blown out and away by the wind? Elm City, Kas. M. E. KING.

The best way to avoid scalp diseases, hair falling out and premature baldness is to use the best preventive known for that purpose—Hall's Hair Renewer.

NO RENEWAL.

Public Warning of the Coming Expiration of the \$3.00 Offer.

Dr. Copeland's offer to provide the afflicted invalids of the community with care and treatment at the nominal cost of \$3 per month, until cured, will positively expire with the close of office hours on the evening of December 31, and will not, under any circumstances, be renewed. Dr. Copeland will cheerfully bear the enormous expense of carrying out his temporary offer to office and mail patients alike, and all who apply within the time limit—that is, all who apply during December—will be treated at \$3 per month, all medicines included, until cured. But let it be distinctly understood as definite, unalterable and final, that there will be no renewal!

Mr. A. T. Sherman, Wilamette, Illinois: "I have been taking the Copeland treatment for deafness and I would say in regard to the result that it has been an unqualified success. In other words, when I began the treatment my right ear had become

Absolutely Dead

to the sense of sound, and when I got through with the treatment the sense of hearing had returned and become practically perfect.

"Before beginning the Copeland treatment I had the care and attention of quite a number of physicians, but they did not succeed in removing the impediment to my hearing or in effecting any improvement. Finally I noticed some statements in the papers made by deaf patients who recited the circumstances of their cure at the Copeland Institute, and I concluded to give it a trial. I did not observe any immediate change for the better, nor anything to give me immediate assurance of the final return of the lost sense of hearing to the long-sealed ear.

"I persevered in the treatment, however, with a degree of confidence naturally inspired by the manifest intelligence of the Copeland theory of the trouble and its remedy, and at the end of three months' course was rewarded for my perseverance by the sudden and apparently instantaneous opening of the closed ear. It seemed

Almost Incredible,

but I discovered in an instant that, instead of being unable to hear the thunder of a railroad train, by the right ear, the lost sense had been so suddenly and fully restored it could listen distinctly to sounds as small as a whisper, the folding of a paper, or the tick of a watch. The trouble had been remedied. The deafness had been cured."

DR. COPELAND'S BOOK FREE TO ALL.

On application at this office, or by writing for it, you may obtain Dr. Copeland's book, containing a description by Dr. Copeland of the Treatment That Cures, Dr. Copeland's Monograph on Deafness, Dr. Copeland's Monograph on Catarrh and Dr. Copeland's famous Symptom Questions describing disease in its different forms.

Our home treatment is just as effective as the office treatment. Write for Home Treatment Symptom Blank.

Copeland Medical Institute,

Rooms 204-205-206, New Altman Building, KANSAS CITY, MO.

DR. W. H. COPELAND, Consulting
DR. G. M. BRANAMAN, Physicians.

OFFICE HOURS:—9 a. m. to 12 m.; 2 to 5 p. m. Open Sundays, 9 a. m. to 2 p. m. Evenings, from 7 to 8.

An Easy Way.

Housewives who have long bent over a bowl and with a knife hacked and chopped till their muscles ached and the meat was minced, will really rejoice in the Enterprise New Meat Chopper, made by the Enterprise Mfg. Co. of Pennsylvania, Philadelphia.

It is a most novel and convenient article and one that is exceedingly valuable in the preparation of sausage, mince meat, hash, Hamburg steak for dyspeptics, chicken and lobster for salads, suet, tripe, codfish, clams, coconuts, meat for beef tea, scrap meat for poultry, corn for fritters, etc. It is a simple contrivance and easily operated.

They are also makers of another ingenious and useful device—the Enterprise Raisin and Grape Seeder.

"The Enterprising Housekeeper," containing 200 recipes, besides valuable information for the housewife, will be mailed for two 2-cent stamps to all who apply to the Enterprise Mfg. Co. of Pennsylvania, Philadelphia.

Homes for the Homeless.

The opening of two Indian reservations in northeastern Utah to settlers opens up over three and one-half million acres of fine agricultural and stock-raising land for home-seekers.

The Uintah and Uncompahgre reservations are reached by the only direct route, the Union Pacific system, via Echo and Park City. E. L. LOMAX, G. P. & T. A., U. P. system, Omaha, Neb.

WEBER Gasoline Engine

For use in any place or for any purpose requiring power. Only a few minutes attention required each day. Guaranteed cost of operation is 1 cent per horse-power per hour. The simplest, most economical and best power. Address Weber Gas & Gasoline Engine Co., 459 SW. Blvd., Kansas City, Mo.



The Apiary.

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

Judging the Condition of a Colony Inside, by Outside Appearances.

By becoming familiar with the nature and habits of the honey bee, the interior of the hive (condition, etc.), may be ascertained to a considerable extent by the action of the bees on the outside. The expert apiarist is thus able to save a great amount of labor in opening and making examination of the inside of the hive by merely a glance of the eye at the entrance. For instance, the first indication of a queenless colony is the bees running about the entrance with much uneasiness and excitement. This is more apparent in cases where virgin queens occupy the hives, and not so great in hives where old queens are present, the same being well supplied with brood. The second indication of a queenless colony is the presence of robber bees. These robbers will keep right along for a number of days trying to get in at every crack or crevice of such a hive, and finally they will, with such persistent efforts, succeed and rob the colony.

When bees cluster on the outside of the hive during the honey season it is an indication that the hive is full of honey, and it is also an indication that they are building queen cells and making preparations to swarm, and may swarm in six or eight days thereafter. When this occurs, and everything is regular, by placing your ear against the hive on the evening of the seventh day after the first swarm issues, you will hear the young queens piping. These shrill voices of the queens are distinctly heard, and I have heard them while standing six feet away from the hive. These sounds are made by the vibration of the wings, and resemble in sound the following: "P-e-e-p, p-e-e-p, peep, peep," the first two being drawn very long, and the last two short, and almost invariably the four sounds are used. When these sounds are thus heard in the evening, it is an indication that a swarm will issue from that hive the next day, and as long as those sounds keep up swarms will continue to issue daily if the weather will permit.

When the bees commence to slaughter their drones it is an indication that the honey flow has come to a close for the season. I say "for the season," as my experience teaches me that the general slaughter does not take place until the end of principal honey harvest. However, I am aware of the fact that at a time when the flow of honey is checked, the bees show some antipathy toward the drones, but a general slaughter does not occur. I am a firm believer that, from natural instinct, bees have the power of foretelling the season, and this is one evidence in that direction. It may not be complete in every case, but enough for the careful observer to draw conclusions. It is also an indication that the honey flow has come to an end or has been checked by certain causes, to see robber bees prying about the hives and trying to gain admittance to every hive.

Sleek, shiny bees crawling about the entrance, seemingly crippled and trembling, and being hauled out by other bees and thrown overboard, is an indication of "bee paralysis." This disease has become very common. A very offensive odor issuing from the hive is an indication of foul brood in its worst stage, and is a warning to destroy the entire hive and contents at once by fire. This is the most disastrous disease known to bees at present.

During early summer, more especially, we may notice pieces of the brood, or young bees, which is always white in color, lying about the entrance of the hive. This is an indication that the bees are destitute of food, and that they are devouring their brood for means of existence. This may occur also where moth worms have a hold in the colony, and the bees, in order to dispatch them, will cut the combs around them, often destroying consid-

erable brood. This will occur again at the end of the honey season when considerable drone brood is present. The bees do not wait for them to hatch, but destroy them in the cells.

Different seasons of the year change the order of things somewhat. Bees lying out over the hives after the close of the honey season, is no indication of swarming, rearing queens, or anything, except that they are overcrowded in the hive when they are all at home and are idle, and indicates a good strong, rich colony. When bees are carrying pollen it is an indication the queen is laying and they are rearing brood. The amount of pollen being brought in in early summer indicates the amount of brood present in the colony. When but little pollen is being brought in, is an indication that the colony is either queenless or that it is a very weak one. The force of bees working at the entrance is an indication of the strength of the colony.

During the winter season, and on a day that bees are flying, if they are spotting their hives, their excrement being in liquid form, is an indication of dysentery. If this is not to be seen, they may be pronounced in good health and in fine condition. During the working season, when bees are seen flocking home in large numbers and none going out, it is a sign of a near approaching storm, and this they will never fail to do.

If a colony is busy gathering honey, while all the others are lying idle, it is an indication that the apiarist ought to have brains enough to breed from that colony.

Wind-Breaks for Bees.

Wind-breaks, especially during the winter season, are of considerable importance, and should be provided in every case where bees are wintered out of doors, whether few or many hives are kept. Bees, like animals, can endure very cold weather if they have plenty of food, but the cold, piercing winds are very hard on them. Many colonies are lost during winter, simply because they are exposed in a place where the wind has a full sweep at the hives. Bees are not proof against cold, and when thus exposed without even the protection of chaff hives, we cannot expect them to come through alive. A wind-break can be provided at any time, and in a very short time, by almost any one. It need not be expensive, and even a rick of corn stalks will answer; but a tight board fence on the north and west side is more desirable. Wind-breaks for general purposes are indispensable, and the best things for the purpose are evergreens, the red cedar being the most hardy and most rapid grower. These can be procured from nurserymen when small, at one or two years old, for from \$10 to \$15 per thousand, and when thus transplanted not one in fifty will fail to grow if the work is properly done.

Dead Bees Blocking the Entrance.

If the entrances to hives are very small, and they should not be large during winter, there is danger of the same becoming blocked with dead bees that accumulate to quite an extent during this time. On the approach of a warm day, when the bees are likely to fly, the entrance should be opened. It often occurs that the dead bees are wedged in the entrance so completely that the bees are unable to remove them, and suffocation of the colony is the result. It is not necessary to be continuously opening the entrances thus during cold weather, as no harm will arise except on such occasions as above, and damage may be done otherwise. It is not necessary to assist the bees in removing the dead bees, or to clean the hive during winter, as they will attend to that properly, and if the entrance is such that one or two bees can pass in or out, they will not fail to arrange everything properly. It is a mistake to shovel away snow from the hives. It is also a mistake to clear away the snow from the entrances. Snow will not prevent the necessary amount of air reaching the bees, and hence there is no danger whatever of suffocation. In very cold weather snow is good protection, when banked up around the hives, and many make the

mistake by shoveling it away, and not only that, but greatly damage the bees by the disturbance at a time they should be strictly let alone. During a heavy snow and a severe cold spell hives may be totally covered with snow.

Feeding Value of Kaffir Corn.

From "Notes From the Farm," by F. C. Burtis, Kansas State Agricultural College.

The present steer-feeding experiment is attracting unusual attention. As stated in the *Industrialist* several weeks ago, the experiment consists of three lots of five steers each. Lot I. is fed on corn meal, lot II. on Red Kaffir corn meal, and lot III. on White Kaffir corn meal. The experiment proper has been running but thirty-five days, hardly long enough to make any comparison between lots. In order to answer the question many times asked, "Which feed is giving the best results?" we give the results up to December 8. For this period of thirty-five days lot I. has gained 457 pounds, lot II. 482, lot III. 604, or an average daily gain per head of 2.61 pounds for lot I., 2.75 pounds for lot II., and 3.75 pounds for lot III. For so short a period it is not proper to predict how much of these differences is due to the quality of the feeds and how much is due to individuality of the steers. All the lots have been feeding very regularly, and receiving the same amount of grain. In the steer-feeding experiments heretofore, each lot had been fed according to its appetite. A change will be made this year, and the same amount of grain will be fed to each lot. At present each lot is receiving 100 pounds a day, and this will be increased little, if any. The work of obtaining the amount of grain passing through in the manure of each lot is giving interesting and valuable results. This investigation has not ended as yet, but from data obtained so far we have the following: Of the grain fed lot I. 57 per cent. passes through undigested; of that fed lot II., 12.8 per cent.; of that fed lot III., 13.8 per cent. It is not likely that these figures will be altered materially when the work ends, as they correspond with data from previous work of this kind.

The Corn Harvester Cases Settled.

Referring to the recent settlement of corn harvester litigation between D. M. Osborne & Co. and the McCormick Harvesting Machine Co., the former company writes:

"We desire to advise you that the settlement of this suit was an amicable arrangement entered into voluntarily by both companies, and that the decision recently entered up was made with our consent. Each company has transferred to the other certain rights in certain patents essential to the binding of corn in an upright position. This mutual agreement practically carries with it the control of the upright corn harvesting and binding machinery by these two companies, and our 1897 machine will have all the distinctive features of our 1896 model, together with many new improvements not found on any other corn harvester.

"During the two years we have manufactured the Columbia the decided favor it has met with has exceeded our expectations, and the demand for them has been so great that we have been unable to supply it. Its ability to harvest corn under the most trying and stubborn conditions has only been possible by the use of new devices peculiarly adapted to easily handle such a heavy crop. First—The reciprocating feeding jaws reach well in advance of the knife, force the cut, and positively avoid pulling the corn up by the roots. Second—The Columbia has two speeds of chains, the front pair running fast enough to straighten up all leaning stalks and incline them a little toward the machine before they are cut off; the rear chains running at a slower speed in unison with the butt conveyors, deliver the stalks in good condition to the binder attachment. Third—All the gearing of the binder attachment is high above the ground, well protected from dirt. Fourth—The binder floor or bottom can be raised or lowered, for binding long or short corn, by a lever within easy reach of the driver. Fifth—The powerful drive wheel with side extension lugs prevents the wheel from slipping and gives greatest possible traction power. Sixth—The machine is perfectly balanced and has no side draft or neck weight. With these valuable features, which are found only on the Osborne Columbia Corn Harvester, we feel that we offer the best machine ever produced for harvesting corn, and in fact the only one that will do it perfectly, regardless of the conditions of the crop."



When consumption gets a grip on a man, it is hard to shake it off. All doctors

used to believe that consumption was incurable. Many doctors still believe it. Dr. R. V. Pierce of the Invalids' Hotel and Surgical Institute of Buffalo, N. Y., never believed this theory. The result was that over thirty years ago by dint of much concentrated study he discovered a remedy that will positively and unfailingly cure 98 per cent. of all cases of consumption.

Consumption is a germ disease, but the germs cannot exist in rich pure blood. Therefore it has been called a "blood disease." People with weak lungs are likely to produce weak lunged children, and weak lungs are an invitation to consumption germs. Therefore consumption has been justly called a hereditary trouble. No matter what it is called or why it comes, Dr. Pierce's Golden Medical Discovery will cure it. The "Golden Medical Discovery" is a powerful germicide. It searches out disease germs and kills them wherever they be in the body—whatever kind of germs they may be. It stimulates digestive action and supplies the blood with the properties it needs to make it pure and rich. It strengthens inherited weak lungs and makes them healthy and germ proof. It is sold by all good druggists.

Stagnation breeds impurity. Impurity breeds disease. Constipation is stagnation of the bowels. Constipation breeds impurity of the blood, and all manner of maladies, trifling and serious, are the result. Dr. Pierce's Pleasant Pellets cure constipation. They never gripe—money back if they do. Don't accept some violent purgative as "just as good," only to give the dealer bigger profit.

Mrs. Rorer Stops Her Magazine.

Mrs. Rorer's magazine, *Household News*, has been absorbed by *The Ladies' Home Journal* in order to make it possible for Mrs. Rorer to form an exclusive editorial connection with the latter magazine. All of Mrs. Rorer's literary work will hereafter appear exclusively in the *Journal*, of whose domestic department she will have entire charge. Several pages of the magazine will be given her each month, and in these she will begin by giving a new series of simple cooking lessons, to be followed by domestic lessons treating separately the care and arrangement of each room in a house.

Harper's Weekly

IN 1897.

With the end of 1896 HARPER'S WEEKLY will have lived forty years. In that time it has participated with all the zeal and power at its command in the great political events of the most interesting and important period in the history of the country, and it has spread before its readers the accomplishments of science, arts and letters for the instruction of the human mind and the amelioration of human conditions and of manners.

What the WEEKLY has been in its spirit and purpose, as these have been manifested principally in its editorial pages, it will continue to be.

It is impossible to announce with precision all that the WEEKLY will contain during the year 1897. It were as easy to announce what is about to happen in the world, what triumphs for good government are to be won, what advances of the people are to be made, what is to be the outcome of the continuous struggle between the spirits of war and peace, what is to happen in the far East, what is to be the state of Europe twelve months hence, what new marvels of science are to be revealed, or what are to be the achievements of arts and letters, for the WEEKLY is to be a pictorial record of all this.

Cartoons will continue to be a feature.

Serial Stories: A New England story by Miss MARY E. WILKINS, will begin in January. A tale of a Greek uprising against the Turks, by Mr. E. F. BENSON, the author of "Dodo," will follow. A sequel to "The House-Boat on the Styx," by Mr. JOHN KENDRICK BANGS, illustrated by Mr. PETER NEWELL.

More Short Stories will appear in the WEEKLY than it has been possible to publish during 1896.

Departments: Mr. W. D. HOWELLS' "Life and Letters" have been among the most charming features of periodical literature; Mr. E. S. MARTIN and others will contribute observations on what is going on in "This Busy World;" "Amateur Sport" will remain the most important department of its kind in the country.

The WEEKLY will continue to present its readers the world's news most interesting to Americans, to make important advances in both the literary and artistic features, and to retain for itself the leading place in the illustrated journalism of the world.

Newspapers are not to copy this advertisement without the express order of Harper & Brothers.

HARPER'S WEEKLY

For one year - - - - - \$4 00

Postage Free to all subscribers in the United States, Canada and Mexico.

Address HARPER & BROTHERS, P. O. Box 959, New York City.

The Home Circle.

THE FORCE OF LOVE.

Hold back thy whip, O master!
Hold back the curse and frown!
The demons of disaster
Fear not the sword or gown;
The demons of disaster—
They troop to wreck all ships
Than winds of Heaven faster—
Hold back thy frowns and whips.
For these, the poor, thy brothers
be—
Remember Him of Galilee!

What other power can save you
From evils trooping near?
From demons all that brave you?
His love alone they fear;
The demons all that brave you
What other is to stay?
Give as He freely gave you,
On this His natal day,
By sacrifice we come to bliss,
There is no other path but this.

Behold the star that shineth
Forever in the east!
Behold the rose that twineth
Above the lair of beast!
Behold the rose that twineth
To bless the monarch's bower,
The same His hand designeth
To cheer the toiler's hour!
The space between the poor and
great
His presence doth obliterate.

O perfect love that chideth
The heart that harbors wrong!
O love that still abideth
To make the weakest strong!
O love that still abideth
When all else pure hath fled,
Thou art! thy strength o'er-rideth
The demons man doth dread.
'Tis thine, O silent force of love,
To make a lion of the dove.
CHARLES EUGENE BANKS.

TWO CHRISTMAS EVES.

An Armenian Maiden's Escape and Its Happy Sequel.

Christmas amid the mountains of Armenia. The scene of our story is a little oriental village, in 189—, nestled amid the rugged cliffs at the head of a smiling valley. The site of the hamlet was a ravine running up the mountain side into a rocky pass, as though the great valley opening beyond had been whittled to a narrow point that it might penetrate the hills. Great precipices yawned on either side, and towering cliffs which seemed to have grown gray with age, even as the snow on the higher peaks of the mountains seemed the hoary locks of those ancients, which there had for centuries watched over the old world. Near by Mount Ararat, where rested the ark after the flood. It was here Noah tilled his vineyards and the human race be-



SHE LEAPED FROM THE PRECIPICE.

gun anew after the floods subsided, for Armenia is one of the oldest lands and its people trace their lineage direct to that Biblical emigrant ship which colonized it when the world was young. From many a quaint, flat-roofed dwelling arose Christmas carols to which soft-voiced echoes sang responsive choruses among the cliffs, and at least one church bell tried bravely, singly and alone, to supply an imitation of Christmas chimes. It was a peaceful picture, upon which the stars twinkled approvingly as they bespangled the slopes with frost-diamonds and coated countless sparkles from the pallid snow. The Armenians are a devout people, and make much of the Christmas festival. This little hamlet was in many respects not unlike Bethlehem, and near it were

many shepherds who guarded their flocks by night, as did those of Judea when the angels sang of peace on earth, good will to men.

At the home of Abanazar, the head man of the village, there were quiet festivities, decorations of holly and other evergreens, songs of praise and stories which for generations had handed down cherished traditions and legends of Armenia. There were the aged grandfather and grandmother, Abanazar and his good wife, three little girls ranging from six to twelve years old, and Zillah, the 16-year-old daughter, with her affianced lover Akthar, the stalwart young herdsman. She was a beautiful maiden, with regular features, large eyes aglow with love, the small but symmetrical form characteristic of so many women of her race. In her picturesque costume she was marvellously handsome, and her tones were as musical as the tinkle of silvery bells or the low notes of Akthar's flute, to which she sometimes sang a soft accompaniment. The pleasant scene in this home was duplicated in many others that starlit Christmas eve.

Suddenly the scene changed. The church bell rang in sharp, short strokes, a spirited alarm, confusion succeeded calm, and there were excited exclamations and hurrying in hot haste as a rider dashed madly down the one central street, shouting: "Save yourselves, Christians, the Kurds are coming!"

But there was no time. Close upon his tracks came hundreds of swathy horsemen, turbaned and fierce, with loud Mohammedan maledictions shouted in deep-voiced hate, and eyes which gleamed like live coals from beneath beetling brows. In a moment pandemonium seemed to have broken loose, the guns spoke sharply, scimitars flashed in silver and turned crimson, and soon the flames from burning buildings cast their lurid glare over an earthly hell wherein fiends held high carnival in shedding innocent blood.

Abanazar and his family, with others, gained the church which stood on the edge of a precipice, and there made a brave stand, but it was useless. Breaches were made in the walls, the place carried by storm, and hundreds slain before the altar dedicated to peace and decorated with Christmas symbols in readiness for the morrow. The floor literally ran in blood, and Zillah in speechless anguish beheld the men of her family and her lover cut down, and women subjected to tortures which chilled her to the soul. With other women and girls she fought heroically, but finally found herself breathless and disarmed in the embrace of Rustem, the huge leader of the Kurds, who had often in days of peace paid her attentions as often repelled.

Suddenly she drew the steel bodkin from her hair, plunged it with unerring aim and the strength born of desperation into the giant's heart, and as he sank to the floor she bounded to the side of the church, seized a lighted taper, opened a trap door in the floor, hurled the light into a supply of powder stored there, and springing through a side door leaped from the precipice as scores of other women had done within the horrible half hour preceding. There was a flash, a thunderous roar, and the solid church seemed to be heaved high in air, while in the lurid light of the explosion dead bodies of men and women could be seen among the flying fragments, and with them scores of live Kurds struggling as they arose, scorched and blackened, toward the sky. The fragments, human and otherwise, came down again and darkness succeeded. The surviving Kurds butchered all who survived, of the villagers, except the women they bore off as captives, but at the foot of the cliff they found but the mangled remains of scores of brave women who had preferred death to slow torture and devilish indignities.

An hour later all was strangely still, burning ruins smoldering with the dull glow of expiring embers marked the graves of hundreds, and the spot on which but a short time before smiled happiness and home. But beautiful Zillah was not dead. She had fallen on the soft bodies of the slain, had much to her surprise found herself but little hurt, and had crawled off into the narrow wooded paths which threaded the

Scott's Emulsion

of Cod-liver Oil and Hypophosphites is as much the standard for all conditions of wasting in children and adults where the lungs are weak or affected, as quinine is the standard for malarial fevers. When you go to a store to get Scott's Emulsion, don't be fooled into taking something else they say "is just as good." It isn't. Scott's Emulsion has gained its reputation by its superior merit, and nothing of its kind has ever equalled it.

mountain fastnesses near, all familiar to her. She sought refuge in a mountain shepherd's cave, who at morn visited the village in search for survivors, but found none. The fierce Kurds had made sure work of their bloody task.

A few weeks later Zillah, through many hardships, found her way to the seaside, and thence to America, coming to a great western metropolis with other Armenian refugees, where she found shelter with the Armenian colony, which did what it could for these unfortunates, human remnants saved from the furnaces of affliction which consumed so many noble lives in darkened Armenia. Mourning for those she loved, almost despairing, she struggled bravely with her lot, and the sweet-faced girl found friends and favor among the free people who pitied her woes and appreciated her faithful work. Patiently she toiled, but her pillow was wet with the tears of sorrow and her heart bled under the stabs of piercing grief. Brave and noble girl! How many like her, pieces of driftwood from the wrecks wrought by Turkish cruelty and fanaticism, have been stranded upon our kindlier shores. Zillah turned in prayer toward the God of her fathers, and sought at His feet the consolation earth denied. Even prayer cannot heal a broken heart; it can but console and slightly assuage such grief as hers.

Christmas eve in the little Armenian colony occupying a corner of a foreign



THE REUNION IN AMERICA.

section of the great western city. The hall was decorated for the occasion with the usual evergreens, and oriental hangings served to recall in this modern land the familiar belongings of lost homes among the Armenian mountains. There was a subdued cheerfulness among the people present, a tribute to Christmas, but they could not rejoice loudly with aching voids in so many stricken hearts and the Moslems still oppressing the Christians among the far-off Armenian hills. They sang, however, Christmas carols strangely sweet which recalled pictures of forgotten homes, and hymns in which sad minor chords seemed to vibrate with unshed tears. What wonder that real tears welled up from tortured hearts, and that they sparkled in pretty Zillah's mournful eyes? Good will to men these exiles

could know and feel, but peace on earth was not for them, even at Christmas, while Turkish scimitars still flashed forth the lightning of fanatic hates, and innocent blood reddened the soil of far Armenia. There was to be a new arrival of Armenians to-night, and they were to recite at this gathering of their compatriots the story of their adventures and their wrongs. Similar tales had been often repeated by similar refugees, but the stories had a tragic interest ever new, while they recounted renewed horrors and the constantly recurring tragedies which added to the list of the lost, and the grand army of sorrowing survivors. As the coming of the visitors was announced the music ceased and all arose to receive them, the hum of the great city without faintly heard in the hush of expectancy within, and the Christmas chimes from an American church near by ringing cheerily, though soft and subdued, through the frosty air.

The door opened and there marched in the little band who came from the valley of the shadow of death, and first among them Abanazar and Akthar, the father and lover so long listed among the dead. You should have seen Zillah's beautiful face, transfigured, the love-light in her large brown eyes, and heard the musically glad little cry with which she sprang into their arms, snuggling close at last with her plump arms about Akthar's neck and his stalwart arm encircling her shapely waist. What is ordinary Christmas happiness to such joy as hers, measureless as infinity. Deep as the sea? Does not love fill even the vast spaces of Heaven? And the men were as deeply moved as the maid, for they had been as certain of her death as she of theirs. Precious indeed are these gifts which fate, stern and unrelenting at times, seems to snatch from the dead to reward the love of the living. Never since angels sang at Bethlehem had Christmas seemed gladder to any human soul, than was this memorable Christmas eve to the beautiful Armenian maiden. After the storm the calm. Akthar and Zillah were wed soon after, and Abanazar became an inmate of their happy home. Under the starry flag which, thank God, tolerates no religious persecution, they live in security, doing their duty as Christian citizens, loving their adopted land with passionate oriental fervor, and contributing as they can toward the needs of those still suffering in the beloved home country. They are loyal to the core, but hope the land of their adoption may do something to stay the hate which crimsoned the land of their birth. God grant that their hope be not in vain.

A simple story, the annals of lives touched with sorrows deeper than those most of us in these happier lands have known. Remembering our mercies at Christmas time, let us not forget the griefs which have burdened and op-

CONSUMPTION

TO THE EDITOR: I have an absolute Cure for CONSUMPTION and all Bronchial, Throat and Lung Troubles, and all conditions of Wasting Away. By its timely use thousands of apparently hopeless cases have been permanently cured. So proof-positive am I of its power to cure, I will send FREE to anyone afflicted, THREE BOTTLES of my Newly Discovered Remedies, upon receipt of Express and Postoffice address. Always sincerely yours,
T. A. SLOCUM, M.C., 183 Pearl St., New York.
When writing the Doctor, please mention this paper.

Mind this. It makes no difference,
RHEUMATISM Chronic, Acute, or Inflammatory
of the Muscles, Joints, and Bones is cured by
SAINT JACOBS OIL
TRY IT

pressed such as these, but apply to them in fullest measure all that is meant by "good will to men." To quote from the good old book, which was theirs even before it became ours: "These are they who came out of great tribulation, and they washed their robes and made them white in the blood of the Lamb. For the Lamb which is in the midst of the throne shall be their shepherd, and shall guide them unto fountains of the water of life; and God shall wipe away every tear from their eyes."

I EDGAR JONES.

The Young Folks.

THE MONSTER "PRACTICING."

Wherever I may go,
Whatever I may do,
That dreadful monster, "Practicing,"
Looms up before my view,
And in a voice I must obey
He calls me from my pleasant play.
Each day, at half-past three,
When I come home from school,
In sternest voice he summons me
Straight to the piano stool;
There while my chords and scales I try,
I count the moments passing by.

If I am out of sorts
And crossly strike a key,
With discord most unbearable
He then does punish me.
He'll worry me with all his might
Until my exercise goes right.
They tell me that in time
More beautiful he'll grow;
There'll be a smile upon that face
That now does scare me so;
His ugliness will flee, and I
Will grow to love him—by and by.

And so, perhaps, if I
Am good and persevere,
And do my lessons right and try
Not to offend his ear,
Old "Practicing" will grow to me
As pleasant as they say he'll be.
—Margaret F. Mauro (aged 12), in St. Nicholas.

An Afterthought.

Hereafter, if your nose you'd see
Well-filled at Christmas dawn,
Why, take this simple hint from me—
Sleep with your stocking on.
—L. A. W. Bulletin.

A Christmas Fact.

The future has a golden tinge,
The past, too, may seem pleasant;
But just about the Christmas tide
There's nothing like the present.
—Harlem Life.

Portrait of a Lady.

Dear Mabel's very clever;
She coaxed away my pelf,
And bought me all the gimcracks
She hankered for herself.
—Chicago Record.

Had a Limit.

He could lift three hundred pounds,
Box for ten or twenty rounds;
He could sprint a wondrous distance with-
out stopping;
But his triumphs found a check;
He came out a total wreck
When he finished up a tour of Christmas
shopping.
—Washington Star.

TIMELY PRECAUTION.



Tommy—Don't be afraid, doggie, I won't hurt you—I just want to tell you something—if you hear any noise to-night, just keep perfectly still, for it'll be Santa Claus, and we don't want him scared away.—St. Louis Republic.

The Man for the Hour.

"The loveliest fellow is going to visit me this Christmas. He's absolutely color blind."

"Is that why he is so lovely?"
"To be sure. Just think of it, he cannot tell the difference between holly and mistletoe berries and—and the house is full of holly."—Truth.

The Best He Could Promise.

"Papa," said Benny Bloobumper, "I want a big bass drum for Christmas."
"I'm afraid you can't have that," returned Mr. Bloobumper, "but you may have a big turkey drumstick."—Detroit Free Press.

A NAMELESS GIFT.

Why Sister Mary Broke Her Engagement with the Doctor.

When Sister Mary began it she intended it to be a lamp mat, and the receiver was to be my Cousin Sarah.

Sister Mary is rather touchy about some things, but I never knew anything to affect her so severely as the mere mention of that lamp mat does now. In fact, I studiously refrain from all mention of it unless I particularly wish to rile her.

Cousin Sarah and Sister Mary are about the same age. I shall not mention Sister Mary's age, as she is still unmarried (having broken with the doctor that Christmas), but I think I am allowed to state that Cousin Sarah was 45 last August, for, since she is married, she is not so particular about concealing her years.

Of course Sister Mary would never have attempted making a lamp mat (for she had never crocheted one before) if Cousin Sarah had not bought the Dresden lamp, so I blame the whole trouble on the Dresden lamp.

The lamp mat began all right, with a little round flat center. Sister Mary got that finely. But as the size in-



THE DOCTOR LOOKED PUZZLED.

creased the thing seemed to curl up around the edge, like the tail of a dried herring, and the larger it grew the more it curled up, until it got to be the shape of a china wash basin. I don't know what was wrong with it, for I am not an expert in that line, but before the lamp mat was complete Sister Mary decided to call it a bag of some sort or other, and put ribbons on it for handles and a tassel on the bottom. You see, when a lamp mat makes up its mind to be a pudding bag you just have to let it have its own way.

So, as I said, she put long ribbons on it, pink ones, and some bows, and I took it over and gave it to the bald-headed doctor, with her compliments and a "Merry Christmas."

She was engaged to him then. That was all right, but what do you think that doctor did? Why, he sat right down and wrote her a note thanking her for her kindness in sending him such a "tasty and comfortable night-cap" and assuring her that it would bring him pleasant dreams. Yes, sir! And I don't wonder Sister Mary got mad and broke the engagement.

But you can bet she hasn't tried to make any lamp mats since.
ELLIS PARKER BUTLER.

On Christmas Morning.

"Ouch!"
The beautiful maiden withdrew her foot hastily.
Plunging her arm into the silken depths she took from the toe of her stocking a five-pound box of candies that she had overlooked.
Need it be added that this happened in Chicago?—N. Y. Truth.

What He Put Up.

Checkly—Did you hang up your stocking on Christmas eve?
Harduppe—No, not quite as bad as that; but I hung up my overcoat and watch.—Brooklyn Life.

Her Time of Joy.

New Boarder—Do you enjoy Christmas, ma'am?
Landlady—Very much, indeed. All my boarders get invited out to dine, you know.—Chicago Record.

THE CHRIST DAY.

Home-bringing and home-loving and home happiness are the bright features of the Christ day throughout the metes and bounds of Christendom. Callous is the heart, and dead to all impressions of light and gladness, which is not quickened to gentleness and unselfishness upon the natal day of Him who taught the broadest humanity and the most disinterested love. Had Dickens written only of Christmas, he should occupy a commanding place in the affection of humanity because of the cheery scenes he pictured and the cheery halos he cast about this day of all days in the year. The very pathos, which at times seemed a part of himself, when he wrote, quickened and brightened under the light of that day until it was nearly divested of all its sadness.

The tragedy of Calvary was years after the birth scene at Bethlehem. The God-child had need to grow up to man's estate and wrap about Him the mantle of infinite deity before He became a man of sorrows acquainted with grief. The Christ-day tells of the virgin mother and her glad smile of joy as she looked upon the face of her newly-born child. It recalls the cherubic song of the angels that startled the shepherds of Salem and the effulgent star that guided the wise men to the manger in which He lay. It brings out of the past the happy circumstances of those who were led into the Divine presence, bringing with them gifts of gold and frankincense and myrrh. So, too, clearer than when first uttered, because now better understood, is heard after the lapse of 2,000 years the Heavenly promise of peace, good will to men. Comes also the teaching of mercy, forgiveness and charity as substitute for the older law of eye for eye and tooth for tooth. When He came the dark night of cruelty and wrong and oppression rolled away, ushering in the gray dawn of an endless day of love for enemies and prayers for those that use their neighbors spitefully.

The example of the sages who came as gift-bearer is universally followed, and meet is it that it should be so, because the heart that gives in love has a sure promise of a blessing from the Lord. The inspiring motive of donatives is the love that thinks no evil against the recipient of the favor, and love is the dominant ruler of the heart that is good. The Christ taught nothing if He did not teach the infinite beauty of home life that is builded upon love. The heart that loves and is cheerful gives freely, thus communicating pleasure to others in the reflection that they are not forgotten, and happiness to the donor in that he perceives he has communicated happiness. Love is contagious, as happiness is contagious, and blessed and thrice blessed is that household which welcomes Christians with ringing of bells and singing of glad songs, with laughter and merry voices, and that makes memorable the day by tokens of affection, whose value rests in the motive which prompted the giving of them.

Did He sorrow? Not for His sins or follies did He grieve. Did He sweat great drops of blood in His agony? Then was it that men might be freed from sin and be capable of appreciating and commemorating and imitating the infinite good of His nature. The face that was marred is now lit with the ineffable joy that comes of man's redemption, and from His great throne He regards all earth's children in love and smiles responsive to the gladness of those homes which make merry and bright the Christ-day, Christmas.
WILLIAM ROSSER COBBE.

The Way with All of Us.

"Christmas comes but once a year, you know," chirruped Mrs. Lufkin.
Mr. Lufkin looked earnestly into the hollow depths of his pocketbook.
"I'm glad of that," he said, in a gloomy tone.—N. Y. Recorder.

So thorough is the excellence of Ayer's Hair Vigor that it can be used with benefit by any person, no matter what may be the condition of the hair, and, in every case, it occasions satisfaction and pleasure, in addition to the benefit which invariably comes from its use.

Young men or old should not fail to read Thos. Slater's advertisement on page 15.



NO DINNER
SICK WIFE
This little picture will come home with telling force to many a tired and overworked farmer's wife, who has often felt that she could not longer stand the strain and who finally succumbed to disease. Poor woman! Do you not know that there is within your easy reach a remedy that will quickly restore you to health and happiness? A remedy that will positively cure

FEMALE COMPLAINTS BRIGHTS DISEASE URINARY TROUBLES GENERAL DEBILITY AND MALARIA

and all diseases caused by disordered Kidneys and Liver. It is a purely vegetable compound which has cured thousands and will cure you. Its name is



Large sized bottle or new style smaller one at your nearest store.

FARMERS

DO YOU WANT TO BETTER YOUR CONDITION? If you do, call on or address: The Pacific Northwest Immigration Board, Portland, Oregon.

When you write mention Kansas Farmer.

Train for Business

At Kansas' most thoroughly practical institution, The Emporia Business College and Short-hand Institute. Modern methods, able teachers and low expenses. Board \$1.50 per week. Students are assisted in getting positions when competent. Write for any other information to the President, C. E. D. PARKER, Emporia, Kansas.

Washburn College, TOPEKA, KANSAS.

Progressive Management,
Thorough Courses of Study,
Economical for Students.

Academic and Collegiate departments. Special teachers of Oratory, Music and Art. THE FALL TERM begins Wednesday, September 16, 1896.

GEO. M. HERRICK, President.

Commercial Collections a Specialty.
H. C. ROOT, Attorney at Law, 104 Sixth Ave. East, Topeka, Kas. Practices in all State and federal courts.

FIELD FLOWERS The Eugene Field Monument Souvenir

The most beautiful Art Production of the century. "A small bunch of the most fragrant of blossoms gathered from the broad acres of Eugene Field's Farm of Love." Contains a selection of the most beautiful of the poems of Eugene Field. Handsomely illustrated by thirty-five of the world's greatest artists as their contribution to the Monument Fund. But for the noble contributions of the great artists this book could not have been manufactured for \$7.00. For sale at book stores, or sent prepaid on receipt of \$7.10. The love offering to the Child's Poet Laureate, published by the Committee to create a fund to build the Monument and to care for the family of the beloved poet.
Eugene Field Monument Souvenir Fund,
180 Monroe Street, Chicago, Ill.



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

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.**

ADVERTISING RATES.

Display advertising, 15 cents per line, agate, (fourteen lines to the inch).
Special reading notices, 25 cents per line.
Business cards or miscellaneous advertisements will be received from reliable advertisers at the rate of \$5.00 per line for one year.

Annual cards in the Breeders' Directory, consisting of four lines or less, for \$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.

If our friends whose subscriptions will expire January 1 will bear in mind that the labors of our subscription department at that time may be lightened by early renewals, and take the first opportunity to send in their dollar bills, they will confer favors which will be greatly appreciated.

Remember, you can get KANSAS FARMER and *Breeder's Gazette* both for one year for \$2, saving \$1 by the combination.

Remember, you can get the KANSAS FARMER and the Topeka Semi-Weekly *Capital*, both one year for \$1.50, sent to this office.

KANSAS FARMER and Leavenworth Weekly *Times* both for one year for \$1.25. KANSAS FARMER and Leavenworth Daily *Times* both for one year for \$3. Send to this office.

The average prices of wheat and corn for the ten years—1886-1895—are figured by the Cincinnati *Price Current* to stand in the relation of 100 for wheat to 53 for corn. At the present time the relation is as 100 for wheat to 27 for corn.

The publisher of the Kansas *Sunflower*, the now famous "Becky Sharp's paper," has made arrangements with us whereby we can offer it and KANSAS FARMER one year for \$1.50, which is the price of the *Sunflower* alone. Send in your subscriptions to this office.

We have left on hand a small number of KANSAS FARMER binders. Any one sending \$1.05 and requesting the binder will receive KANSAS FARMER for one year and a binder. Until the demand becomes very strong for binders we shall not make a new supply.

The *Youth's Companion* is one of the finest publications for young and also for older people. We can furnish KANSAS FARMER and *Youth's Companion* for \$2.35 for one year to new subscribers to *Youth's Companion*. Or we will renew subscriptions, with KANSAS FARMER subscriptions, at \$1.65, if sent direct to this office.

Leslie's Illustrated Weekly has always been and is now a \$4 paper, and worth the money if any illustrated paper is worth \$4 per year. But in order to accommodate our subscribers we have made arrangements with the publishing company whereby we are able to offer *Leslie's Weekly* and KANSAS FARMER both for one year for \$3.

A great many renewals of subscriptions have been received during the month of December. We wish all of our friends whose labels indicate January, 1897, would promptly renew. We do not want to lose one from the list. A dollar bill, a dollar's worth of postage stamps, a silver dollar, a dollar postal order or a dollar bank draft, whichever is most convenient, may be sent. But be sure to inclose your name and address with the remittance.

ITS STANDING ABROAD.

Probably but a small portion of our own people realize the high standing to which the work of the Kansas Board of Agriculture has attained and the attention it attracts from the foremost authorities and educators in other States, who it may be assumed are impartial observers. It is doubtful if any publication of a like department in any State of the Union has been accepted as a class-book in its own or other educational institutions, yet this is what is being done right along with those of the Kansas board. Its quarterly reports devoted to "Alfalfa" and "Feeding Wheat to Farm Animals" were asked for in quantities for such use by several agricultural colleges, the first application coming from that of Massachusetts; the latest report, devoted to "Cow Culture," issued sixty days ago, is already in the hands of classes in seven State agricultural colleges, while commendations, with requests for more, that cannot be supplied, continue to come.

Excerpts from a few letters and notices received by the Secretary from educators and journals outside the State and culled from a mass of those similar in reference to the one publication, "Cow Culture," suggest forcibly the appreciation which the work of the Kansas agricultural department is accorded by outsiders:

E. H. Farrington, Professor of Dairying, University of Wisconsin: "I consider 'Cow Culture' a very valuable book for dairymen, and wish to inquire if you can sell me at least 100 copies, and at what price? I would like one in the hands of each of our dairy students, and hope you may be able to supply me."

Thos. F. Hunt, Professor of Agriculture, University of Ohio: "We have thirty-five students now about to take up the study of the dairy cow. If you have them to spare I would be pleased to have you send thirty-five copies of your 'Cow Culture,' at our expense."

J. H. Connell, Professor of Agriculture, Texas Agricultural and Mechanical College: "I wish to use your report on 'Cow Culture' in class-room instruction in agriculture. Could you send me sixty copies? Your work of compilation of instructive matter on particular subjects is of the greatest value to the agricultural masses."

T. L. Haecker, Professor of Dairy Husbandry, University of Minnesota: "I am in receipt of 'Cow Culture,' and have examined it with great care, and consider it one of the best publications ever issued in the interest of dairy husbandry, and reflecting great credit on the compiler. It will prove a blessing to Kansas. Could you spare me sixty copies for my classes?"

Prof. W. A. Henry, Director Wisconsin Experiment Station: "I am delighted with the report on 'Cow Culture.' It is most timely and filled to the brim with valuable, practical information. You are doing a great work for the people of Kansas."

C. S. Plumb, Professor of Agriculture, Indiana Agricultural College: "It is a most excellent volume and should be of great service to the farmers of Kansas. I wish you might have the means to give it a wide distribution beyond the borders of Kansas."

C. C. Georgeson, Professor of Agriculture, Kansas State Agricultural College: "'Cow Culture' is at hand this morning. Can you spare me 150 copies for my classes?"

W. M. Beardshear, President Iowa Agricultural College: "I congratulate you on the completeness and efficiency of the report on 'Cow Culture.' I am sure it will be of great service to those interested in this industry."

Prof. E. J. Wickson, University of California: "'Cow Culture' deserves rank beside your other specials, all of which are rich contributions to practical knowledge, and must be strongly promotive of profitable productive arts in your State. Your publications have a distinctive breadth and pertinence, widely recognized. I give them to my students for collateral reading."

H. B. Battle, Director North Carolina Experiment Station: "Please allow me to express my appreciation of the reports of the Kansas Board issued under your direction. They are very complete and practical, and must be of immense value to the people of your State, even as they are appreciated by the people in such distant States as our own."

H. H. Dean, Professor of Dairying, Agricultural College of Ontario: "These reports are the most valuable contributions to dairy literature that have been published."

R. A. Pearson, Acting Chief Dairy Division, United States Department of Agriculture: "'Cow Culture' contains a vast amount of useful information, and will serve as a valuable book of reference."

C. F. Curtiss, Professor of Animal Hus-

bandry, Iowa Agricultural College: "I have such a high appreciation of your recent report on 'Cow Culture' that I will be very grateful if you can furnish me fifty copies to be used in my classes in live stock."

E. C. Bennett, Superintendent Dairy Department, Iowa State Fair: "I am very much pleased with 'Cow Culture,' and consider that it has no equal in its line, and that the line is one of the most important that can engage the farmer residents of that part of our country suitable for the dairy industry."

Hoard's Dairyman: "There is in this report a fund of vital interest to every Kansas farmer, as well as farmers elsewhere, rarely equaled by any work of its size."

The Dairy World: "One of the most tireless and enthusiastic officials attached to any agricultural department is Secretary Coburn, of the Kansas Board of Agriculture. All his reports are admirable documents, prepared with care and the utmost correctness, and none of them have the stamp of the usual dry matter and unintelligible statistics that mark other agricultural reports. He knows how to make his reports interesting, and those who are favored with copies always value them most highly and read them through with interest, profit and knowledge. 'Cow Culture' will help to stimulate interest in dairying to a wonderful extent in Kansas and other States where it may be read."

Breeder's Gazette: "Secretary F. D. Coburn, of the Kansas Board of Agriculture, is doing a great lot of rare work for the agriculturists of that State. As a matter of fact he is making libraries. He calls his issues quarterly reports, but the pamphlets he prints are really treatises on the topics touched upon. * * * The man who cannot learn something from his report on 'Cow Culture' must be more than a past master in the art of dairying. It is certainly not the least valuable of the remarkable series of bulletins that Secretary Coburn has brought out for the Sunflower State farmers."

National Stockman: "Secretary Coburn, of the Kansas Board of Agriculture, has issued a report entitled 'Cow Culture,' which contains more sense to the square inch than anything that has yet appeared."

Irrigation Age: "The object lesson that Secretary Coburn of the Kansas State Board of Agriculture offers as a means of making his official position and labor therein of practical value to the farmers, is indeed a striking one. This indefatigable Secretary, with an amount of labor that is simply wonderful, prepares bulletins and reports and scatters them far and wide, and not the least feature of this is that every bulletin and every report is of the most intense and practical interest to those for whom they are intended—the average farmer."

Nebraska Farmer: "We do not hesitate to go on record as saying that this report contains a greater variety of condensed reliable dairy information applicable to the West, than we have ever seen before in print in any book, bulletin or other publication."

The matter pertaining to "Cow Culture" is but one of several equally valuable features embodied in the Board's tenth biennial report (about 800 pages), which will be ready for the public by the first week in January. The postage for the distribution of this work, probably 30 cents per volume, has not yet been provided by the Legislature. All Kansas people who desire it will do well to make early application for copies to their Representative or State Senator so as to not "get in" after the limited edition is exhausted. Those who choose to send the postage to Secretary Coburn will be sure of having copies sent them as soon as issued.

Receipts of wheat at primary markets in this country have, for several weeks, run a little above half as great as for the corresponding weeks last year. The exports for the same period have averaged not far from a fourth greater. The effect is evidenced in rapid reductions in the visible supply, instead of increase, as during the corresponding periods of other years.

This is the time of year to make up your list of periodicals for next year's reading. Every family should have at least one home county paper, one agricultural paper and one magazine. Many will add one State political paper and one of the great city papers. Others will want a more extended list. Whatever your wants, we can save you money on the purchase. We have wholesale rates on everything published and will give the advantage to every subscriber to KANSAS FARMER. Send in your list get our estimate.

COL. BRIGHAM FOR SECRETARY OF AGRICULTURE.

At the recent meeting of Kansas State Horticultural Society, a resolution was adopted favoring Col. J. H. Brigham, of Ohio, Master of the National Grange, for Secretary of Agriculture. A similar resolution was unanimously adopted by a large meeting of farmers at a farmers' institute at Mission Center, Shawnee county, last week. It is reported that similar action is being taken at farmers' meetings and by farmers' organizations throughout the country.

Col. Brigham is a strong man of broad views and large experience. He is a practical farmer, and, though a man of mature years, makes a full hand in the hay field and at other heavy work when at home. He is the most prominent representative of organized farmers in this country to-day. By his efforts and through his watchful care much of the legislation which has been enacted at the instance of farmers has been secured. He is capable of filling the chair of Secretary of Agriculture as it has not been filled since Uncle Jerry Rusk occupied it. If the voice of the men on the farm shall prevail, Col. Brigham will be called to the Cabinet of President McKinley.

The objection is raised that he resides in Ohio, and that Ohio is to have the President and may have several other important officials under the new administration. This argument may work well with politicians but its force is not recognized by those most interested in the work done in the Department of Agriculture—the farmers of the country, who care less about the division of spoils than the selection of the best man for the place.

BALANCE OF TRADE.

The course of trade between this country and foreign nations during the last four months of 1896 is a matter of considerable interest. We are selling more than we are buying, and the excess is so great that we have been not only importing gold in partial settlement of the balance in our favor, but we have also been importing our interest-bearing obligations, and we have still a comfortable unsettled balance to our credit. The position may be summed up as follows: For the four months—August, September, October and November—the excess of merchandise exports over merchandise imports amounted to \$192,000,000, against an excess of \$24,500,000 for the corresponding period in 1895. Estimates of the excess in our favor for December place it at \$30,000,000, thus making the balance for the last five months of the year \$222,000,000. The net imports of gold for the period have been not far from \$71,000,000. Interest accruing on American securities held abroad is estimated at \$12,000,000 per month, making \$60,000,000 for the five months under consideration. It is also estimated that American securities have been sent home from foreign countries during the five months to the amount of \$25,000,000. These several large items amount to \$156,000,000. The account should then stand at the end of the year:

Balance of trade in our favor, five months.....	\$222,000,000
Amount paid in gold.....	\$71,000,000
Amount paid in interest coupons.....	60,000,000
Amount paid in securities returned.....	25,000,000
Total paid us, five months.....	156,000,000

Balance due America January 1, 1897.....\$ 66,000,000

It is estimated in Wall street that the excess of exports is even greater than reported, the difference being represented by bills against foreigners not yet settled but held for the profit there is in holding them. The amount of these is placed at about \$19,000,000, which, added to the above balance, makes an aggregate of \$85,000,000 due to this country at the close of the year.

KANSAS FARMER and the *Advocate*, both one year, for \$1.50.

KANSAS FARMER and *Agricultural Epitomist* to January 1, 1897, for \$1.25. Subscribe now.

Only good things are imitated, therefore be sure that you get the genuine Salvation Oil if you want to cure your rheumatism.

PROGRAM

Twenty-Sixth Annual Meeting Kansas Board of Agriculture, to be held in Topeka, January 13, 14 and 15.

Delegates and members will meet for organization at the office of the board, at 4 p. m., January 13.

WEDNESDAY EVENING SESSION, 7:30.
Address of welcome, Gov. J. W. Leedy.
Response, the President, Thos. M. Potter.
"The Longevity of Farms," T. W. Harrison, Topeka.
"Western Kansas—Her Needs and Possibilities," Chas. E. Lobdell, Dighton.
"Some Views of a Packer," Geo. P. Dold, Wichita.

Thursday, January 14.
MORNING SESSION, 9:30.
"External Diseases of the Hog, and Their Treatment," Wm. Belshaw, Seneca.
"The Necessity for Meat Inspection," Dr. C. J. Sihler, Kansas City.
"The Problems of Cattle Feeding," R. M. Allen, Ames, Neb.

AFTERNOON SESSION, 1:30.
"Silos and Ensilage," Prof. H. J. Waters, Missouri Agricultural college, Columbia.
"Twelve Years Experience and Observation With Sheep in Western Kansas," A. T. Howden, Jetmore.
"Forty Years of Kansas Corn-Raising," W. D. Rippey, Topeka.

EVENING SESSION, 7:30.
"Wheats and Wheat-Growing in Kansas," C. B. Hoffman, Enterprise.
"Some of the Things I Have Unlearned," Senator W. A. Harris, Linwood.

Friday, January 15.
MORNING SESSION, 9:30.
"From Pig to Market," C. A. Grutzmacher, Wheaton.
"Utility and Management of County Fairs," Secretary Chas. H. Ridgway, Ottawa.

"Fairs and Expositions—Their Origin, Uses and Management," Secretary R. W. Furnas, Brownville, Neb.

AFTERNOON SESSION, 1:30.
Election of officers and members.
"Irrigation Possibilities and Probabilities of Western Kansas and Nebraska," I. A. Fort, North Platte, Neb.
"Moisture and Aridity," John Hay, Junction City.

EVENING SESSION, 7:30.
"Agricultural Education in the Common Schools," Emerson T. Abbott, St. Joseph, Missouri.
"Country Clubs," Mrs. Willis Lord Moore, Hutchinson.

OTHER MEETINGS.

The Improved Stock Breeders' Association, the State Swine Breeders' Association, the State Poultry Association, the State Temperance Union, the State Women's Christian Temperance Union, and the Good Templars will hold their regular annual meetings during the same week as the State Board of Agriculture.

RAILROAD RATES.

All railroad lines are expected to grant a rate of one fare and one-third for round-trip tickets for all these meetings from all points in Kansas, also Kansas City and St. Joseph, Mo., on the certificate plan. To secure the benefit of these reduced rates the purchasers of tickets will pay full fare coming and take certificate from the ticket agent that they have done so; such certificate when countersigned by F. D. Coburn, Secretary of the Kansas State Board of Agriculture, will entitle the original purchaser to a return ticket at one-third fare. Do not fail to secure the certificate when purchasing a ticket.

HOTEL RATES.

Rates at Topeka hotels will as usual be reasonable, and accommodations can be secured either at hotels or less expensive boarding-houses at prices suited to all classes.

PRICES AND CROPS.

A brief statement as to the government crop report for December is that it shows that the farm price of corn averages 21.4, against 25.3 last year; the average price of wheat is 72.7, against 50.9 last year; of rye, 40.3, against 44 last year; of oats, 18.6, against 19.9 last year; of barley, 32.2, against 33.7 last year; of buckwheat, 39.1, against 43.2 last year; of potatoes, 23.7, against 26.6 last year; of leaf tobacco per pound, 6 cents, against 6.9 cents last year; of hay per ton, \$6.54, against \$8.35 last year.

The condition of winter wheat on December 1 averaged for the country 99.5 per cent., as against 81.4 in 1895. In the principal winter wheat States the percentages are as follows: Ohio

101, Michigan 90, Indiana 100, Illinois 99, Missouri 101, Kansas 103, Nebraska 93, California 97.

The returns make the acreage of winter wheat just sown 105.2 per cent. of the area harvested in 1896. This estimate, which is preliminary to the complete estimate of June next, makes the area sown for the harvest of 1897, 23,986,470 acres.

The condition for fall wheat seeding throughout Europe, except in France and southern Russia, are reported generally favorable. Increase in acreage probably not great.

KANSAS IMPROVED STOCK BREEDERS.

The next annual meeting of the Kansas Improved Stock Breeders' Association (which also includes the Kansas Swine Breeders' Association) and the first annual breeders' combination sale, will be held at Topeka, January 12 and 13, 1897. This will be the greatest occasion for fine stock breeders ever held in Kansas, and each member of the association is expected to do something for the good of the order. This may be the only warning given. Prepare yourself accordingly, so that when the Executive committee calls you will be properly equipped for action.

The Committee on Program and Arrangements will shortly issue the annual program, and meantime it is expected that each member will immediately send suggestions by return mail to the Secretary, so that this annual meeting shall by far surpass all previous ones.

The year 1897 should be a great year for breeders and the improved stock business generally, and this convention will probably start the ball rolling. Address, H. A. HEATH, Secretary, Topeka, Kas.

Destroy the Gophers.

EDITOR KANSAS FARMER:—Will you please tell me, in your next paper, what to do to keep the ground mice or gophers from destroying my young fruit trees? They dig down and eat the roots all off and the bark off at the top of the ground. I had wrapped them with paper to protect them from rabbits, but these other things are working under ground.

J. N. JARVIS.

Dallas, Mo., December 15, 1896.

Gophers are easily destroyed by poisoning. Small potatoes or pieces of parsnip or other food acceptable to the gophers may be used for bait. Cut a small potato in two, place a little strychnine on the cut surface and fasten the two pieces together in their original positions by sticking a small wooden peg through them. The potato thus prepared is placed in the run of the gopher, and after eating it he will never eat another tree root. Bisulphide of carbon is used by saturating a small ball of cotton or other absorbent with the liquid and placing in the gopher's run and covering the opening again with earth. The ill-smelling bisulphide evaporates and the vapor is death to the animal. Some catch the gophers with steel traps. They must be killed or they will ruin the orchard.

Farmers' Institutes.

The following dates and appointments for farmers' institutes in this State, under the auspices of and to be attended by representatives from the Agricultural college, have so far been made:

- Hackney, Cowley county—December 29 and 30; Profs. Failyer and Mason.
- Hiawatha, Brown county—December 30; Dr. Mayo.
- Effingham, Atchison county—January 6 and 7; Profs. Hood and Popenoe.
- Pleasanton, Linn county—January 7 and 8; Profs. Georgeson and Walters.
- Overbrook, Osage county—January 21 and 22; Profs. Mayo and White.
- Wellsville, Franklin county—January 22 and 23; Profs. Georgeson and Will.
- Concordia, Cloud county—January 28 and 29; Profs. Mayo and Graham.
- Peabody, Marion county—January 28 and 29; Profs. Mason and Walters.
- Stockton, Rooks county—February 4 and 5; Prof. Hood and Assistant Burtis.
- Hutchinson, Reno county—February 4 and 5; Profs. Hitchcock and Nichols.
- Newton, Harvey county—February 4 and 5; President Fairchild and Mrs. Kedzie.

The Oak Grange Farmers' Institute.

EDITOR KANSAS FARMER:—The farmers' institute, which was anticipated with so much interest, has come and gone, and we who have an especial interest in it as being purely a Mission Center affair are well satisfied with results. Too much praise cannot be awarded to the Secretary, Mrs. John Sims, for the splendid work accomplished, and to the President, Mr. Ed. Buckman, who presided with true official dignity and promptness.

The institute convened on Thursday, December 17, at 2 p. m., at Grange hall. There were but few present at the first session. The weather was somewhat threatening, which prevented the attendance of some whose names were on the program.

Mr. A. H. Buckman, who can be depended upon in an emergency, responded, when called, with a paper, "What Can We Do in Winter Months to Advance the Spring Work on Our Farms?" which was freely discussed.

The outlook was more encouraging when the meeting came to order at 7:30 p. m. The hall was comfortably filled. A number of papers were read, followed by the usual discussion.



A very interesting feature of the evening was the reading of papers by Masters Teddy and Ralph Buckman and John Sims, Jr., on "Feeding and Raising Calves." The papers were nicely prepared and did the boys much credit. Each one gave his particular method, which called forth warm commendations, as also some pleasing reminiscences in the lively discussions which they elicited.

Friday morning the session opened very auspiciously. The weather was fine and the hall filled to overflowing.

Mrs. Anna Igou presented a paper entitled "The Noted Women of This Country and What They Have Done," which was admirably written and fully appreciated. Mrs. Igou successfully proved that the "new woman" is an improvement on the old, and is here to prove herself a necessary inspiration to the lagging interests of business.

Mr. Stout, County Superintendent, read a paper on "The Educational Pulse." Mr. Stout has become one of the foremost in the line of educators, and his paper was listened to attentively. This subject was treated at length and called out an interesting discussion.

Mr. J. F. Cecil treated the subject of "Planting Wind-breaks" successfully, as his experience enabled him to do.

A "new departure" was the feature of this session, being a display of "fancy cooking," with samples. All whose names were on the program responded with choice samples, giving methods of preparation, etc. As this array was to grace the tables in waiting, for lunch, you may be sure expectation ran riot. However, it all vanished without serious results.

The afternoon session was led by Mr. W. L. Coultis, in an instructive paper on the "Canker Worm," a pest which the orchardist seems unable to banish.

Secretary Coburn instructed and amused his hearers with a paper entitled "A Better Appreciation of the Cow." Mr. Coburn is strong in the faith that the neglected, patient cow will receive, in the course of time, proper recognition at the hands of the progressive farmer.

Dr. Longshore, of Topeka, read a valuable paper on "Sanitation of Farm Homes," which contained so much good instruction, especially for careless ones of the "male persuasion," that we sang a *te deum* in our hearts to see so many of them present. That we understood all the medical terms used is somewhat doubtful, but we do know that bacteria must be instantly killed, even if we have to shoot them—with carbolic acid.

Second assistant Domino 18734 by What's Want
Domino won first pig under 6 months, Nebraska S
are high scorers. We have the best equipped dair
in northern Kansas. Farm in Republic county, near
road to Belleville, or write. JOHN P. TO

It is not what is eaten but what flated that feeds and builds up em.

ge percentage of the cures by this wonderful "Discovery" uses which had already been ced hopeless by attending phy- after cod liver oil and all other medics had been tried in vain. lerce's extraordinary success in e of special chronic diseases is thirty years as chief consult-

Mr. Harry Larimer delivered a fine address, the subject of which, "Books," he treated in his usual happy manner. This was followed by a paper on "Patriotism," by Mrs. McCracken.

Prof. Scarrow, of Washburn college, gave a series of stereoptican views, which was thoroughly enjoyed by all. Some of them were quickly recognized by "old-timers" as "Jim Lane of Kansas," "Capt. Burnett" and many of the old land-marks of Topeka and vicinity.

During the sessions music was one of the pleasant things furnished for the entertainment of guests.

Mesdames Scott, Sims and Igou gave charming duets and solos. Miss Comstock, of Seabrook, also gave several fine solos, responding pleasantly to an encore. KITTEE J. MCCRACKEN.

A New Shrub That Cures Kidney and Rheumatic Diseases--A Free Gift.

A short time ago our readers were made aware of a valuable new botanical discovery, that of the Kava-kava shrub, or, as botanists call it, *Piper methysticum*, found on the banks of the Ganges river in East India. From a medical standpoint this is, perhaps, the most important discovery of the century. The use of the Kava-kava shrub, like other valuable medicinal substances, opium and quinine, was first observed by Christian missionaries among the natives as a sovereign remedy for kidney diseases and other maladies caused by uric acid in the system. Since its general introduction Alkavis (the Kava-kava compound) has wrought many remarkable cures of kidney and rheumatic diseases.

Mr. R. C. Wood, a prominent attorney of Lowell, Ind., was cured by Alkavis of rheumatism, kidney and bladder trouble of ten years' standing. He writes:

"I have been treated by our home physicians, all without the least benefit. My bladder trouble became so troublesome that I had to get up from five to twelve times during the night to urinate. In fact, I was in misery the whole time and was becoming very despondent. * * * I have now used Alkavis and am better than I have been for five years. I know Alkavis will cure bladder and kidney trouble. * * * It is a wonderful and grand, good remedy."

And even more wonderful is the testimony of Rev. John H. Watson, of Sunset, Tex., a minister of the gospel in thirty years' service, stricken down at his post of duty by kidney disease and cured by Alkavis. Mrs. James Young, of Kent, O., writes that she had tried six doctors in vain, that she was about to give up in despair, when she found Alkavis and was promptly cured of kidney disease and restored to health. Another most remarkable case is that of Rev. Thomas Smith, of Cobden, Ill., who passed nearly one hundred gravel stones under two weeks' use of this great remedy, Alkavis.

So far the Church Kidney Cure Co., No. 420 Fourth avenue, N. Y., are the only importers of this new remedy, and they are so anxious to prove its value that for the sake of introduction they will send a free treatment of Alkavis prepaid by mail to every reader of KANSAS FARMER who is a sufferer from any form of kidney or bladder disorder, Bright's disease, rheumatism, dropsy, gravel, pain in back, female complaints or other affliction due to improper action of the kidneys or urinary organs. We advise all sufferers to send their names and address to the company and receive the Alkavis free. It is sent to you entirely free, to prove its wonderful curative powers.

Holiday Rates.

Low rates for round trip on The Great Rock Island Route, during holidays. Ask any ticket agent of the C. R. I. & P. railway for rates and other particulars in reference to these round trip tickets. JOHN SEBASTIAN, G. P. A., Chicago.

who here gave the results of their costly experience, possessed this knowledge when they first planted, their wealth to-day would be many thousands of dollars more than they can now claim. The choice of varieties was made by ballot. The selection of apples was divided into three subdivisions, namely: Winter apples for commercial orchard; fall and summer apples for commercial orchard, and general selection of apples for family orchard. A little confusion of ballots occurred from the fact that several understood the first ballot to include a full selection for commercial orchard. On this account some fall apples were voted for in the winter apple list.

WINTER APPLES FOR COMMERCIAL ORCHARD.

The ballots under this head were as follows:

Butler county.—J. W. Robinson, El Dorado: Ben Davis, Missouri Pippin, Winesap, Jonathan, York Imperial.

Douglas.—W. E. Barnes, Vinland: Missouri Pippin, Winesap, Ben Davis, Gano, Jonathan. A. H. Griesa, Lawrence: Missouri Pippin 500, Ben Davis 200, Jonathan 100, Winesap 100, Gano 100. George Y. Johnson, Lawrence: Gano, York Imperial, Missouri Pippin, Smith's Cider, Jonathan (soil limestone underlaid with sandstone). Wm. Plasket, Lawrence: Ben Davis, Missouri Pippin, Winesap, Gano, Jonathan. Samuel Reynolds, Lawrence: Winesap, Missouri Pippin, Gano, York Imperial, Smith's Cider. B. F. Smith, Lawrence: Missouri Pippin, Winesap, Ben Davis, York Imperial, Jonathan.

Geary.—Wm. Cutter, Junction City: Missouri Pippin, Gano, Ben Davis, Winesap, Huntsman.

Jackson.—Jacob Dixon, Holton: Winesap, Ben Davis, Jonathan (fall), Rawles' Genet, Maiden's Blush (fall). F. W. Dixon, Holton: Winesap, Ben Davis, Missouri Pippin, Jonathan, Gano. J. W. Williams, Holton: Ben Davis, Winesap, Missouri Pippin, White Winter Pearmain, Smith's Cider.

Jefferson.—J. W. Curry, Winchester: Ben Davis, Jonathan, Gano, Winesap, Missouri Pippin. E. M. Gray, Perry: Ben Davis 400, Missouri Pippin 800, Jonathan 100, Gano 100, Winesap 100. R. M. Mackey, Oskaloosa: Jonathan, Gano, Ben Davis, Winesap, Salome.

Johnson.—E. P. Diehl, Olathe: York Imperial, Winesap, Missouri Pippin, Gano, Genet. Wm. T. McClure, Olathe: Ben Davis, Winesap, Jonathan, Genet, Gano.

Leavenworth.—Mrs. H. T. Bullard, Tonganoxie: Jonathan, Ben Davis, Missouri Pippin, Gano, York Imperial. Dr. J. Stayman, Leavenworth: Jonathan, Winesap, Gano, Ben Davis, Genet, York Imperial, Willow Twig, Missouri Pippin. [No signature]: Winesap, Ben Davis, Willow Twig, Missouri Pippin, Jonathan.

Miami.—T. A. Stanley, Osawatomie: Ben Davis, Winesap, Missouri Pippin, Jonathan, Genet.

Morris.—Jas. Sharp, Parkersville: Ben Davis, Missouri Pippin, Jonathan, Gano, Winesap.

Nemaha.—S. J. Baldwin, Seneca: Ben Davis, Missouri Pippin, Winesap, Jonathan, Gano.

Osage.—B. M. Billings, Osage City: Winesap, Missouri Pippin, Ben Davis, York Imperial, Genet. H. L. Ferris, Osage City: Winesap, Ben Davis, Missouri Pippin, Gano, York Imperial. C. D. Martindale, Scranton: Winesap, Ben Davis, Missouri Pippin, Jonathan, Smith's Cider.

Republic.—O. A. A. Gardner (P. O. Byron, Neb.): Genet, Missouri Pippin, Gilpin, Winesap, Ben Davis (land, upland prairie).

Rice.—Dr. G. Bohrer, Chase: Ben Davis, Genet, Smith's Cider, White Pippin, Wagner (fall).

Riley.—W. Marlatt, Manhattan: Jonathan, Winesap, York Imperial, Gano, Missouri Pippin (strong, rich soil). Prof. S. C. Mason, Manhattan: Winesap, Ben Davis, Missouri Pippin, Genet, Jonathan (clay upland soil).

Sumner.—G. W. Bailey, Wellington: Ben Davis, Missouri Pippin, Jonathan, Winesap, Gano.

Shawnee.—J. B. Anderson, Rossville: Winesap, Missouri Pippin, Jonathan, Ben Davis. F. Babcock, North Topeka: Missouri Pippin, Ben Davis, Winesap, Mammoth Black Twig, Rome Beauty. T. W. Harrison, Topeka: Jonathan, Winesap, Missouri Pippin, York Imperial, Genet,

H. Johnson: Gano, Ben Davis, Winesap, Jonathan, Smith's Cider. A. E. Jones, Opeka: Ben Davis, Missouri Pippin, Winesap, Jonathan, Smith's Cider. Dr. Henry W. oby, Topeka: Grimes' Golden, Ben Davis, Nathan, Missouri, Pippin, Red Winter earmain. Edna Ott, Topeka: Jonathan, Missouri Pippin, Gano, Winesap, Maiden's Blush. B. A. Patten, Silver Lake: Missouri Pippin, Winesap, Ben Davis, Gano, York Imperial. G. W. Van Orsdal, Silver Lake: Winesap, York Imperial, Missouri Pippin, Ben Davis, Gano. F. Wellhouse, Opeka: Ben Davis, Jonathan, Missouri Pippin, York Imperial, Gano.

Wyandotte.—W. D. Cellar, Edwardsville: Ben Davis, Jonathan, Missouri Pippin, Huntsman, Maiden's Blush. A. Chandler, Argentine: Gano, Jonathan, Winesap, Missouri Pippin, York Imperial. D. S. Hames, Edwardsville: Ben Davis, Jonathan, Missouri Pippin, Smith's Cider, Gano. F. Holsinger, Rosedale: Jonathan, Gano, Ben Davis, Winesap, York Imperial. G. L. Holsinger, Rosedale: Ben Davis, Jonathan, Missouri Pippin, Winesap, Gano. Gertrude Taylor, Edwardsville: Ben Davis, Jonathan, Willow Twig, Winesap, York Imperial. Edwin Taylor, Edwardsville: Jonathan, Ben Davis, Willow Twig, Ortley, Smith's Cider. Four ballots not signed were as follows: (1) Ben Davis, Winesap, Missouri Pippin, Smith's Cider. (2) Jonathan, Maiden's Blush, Missouri Pippin, Genet, Gano. (3) Jonathan, Grimes' Golden, Winesap, York Imperial. Ben D.

ri: SI

pr

pr

mi

for these:

Butler county.—J. W. Robinson, El Dorado: Maiden's Blush, Wealthy, Rambo, Baccusor.

Douglas.—W. E. Barnes, Vinland: Early Harvest, Yellow Transparent, Maiden's Blush, Grimes' Golden. N. P. Deming, Lawrence: Early Harvest, Red June, Jefferis, Keswick Codlin, Grimes' Golden, Maiden's Blush, Baldwin, Northern Spy, Lowell. A. H. Griesa, Lawrence: Yellow Transparent, Jefferis, Maiden's Blush, Grimes' Golden. W. Plasket, Lawrence: Red June, Jefferis, Chenango, Strawberry, Maiden's Blush, Rambo, Hay's Wine. Samuel Reynolds, Lawrence: Early Harvest, Maiden's Blush, Jonathan, Pennsylvania Red Streak. B. F. Smith, Lawrence: Chenango Strawberry, Early Harvest, Pennsylvania Red Stripe, Fall Wine.

Geary.—Wm. Cutter, Junction City: Maiden's Blush, Pennsylvania Red Stripe, Early Harvest, Cooper's Early.

Jackson.—Jacob Hixon, Holton: Early Harvest, Golden Sweet, Rambo, Jonathan. J. W. Williams, Holton: Early Harvest, Red June, American Summer Pearmain, Golden Sweet, Sweet Russett, Maiden's Blush, Jonathan, Swaar, Northern Spy, Snow.

Jefferson.—J. W. Curry, Winchester: Early Harvest, Red June, Cooper's Early White, Maiden's Blush. E. M. Gray, Perry: Red June, Yellow Transparent, Maiden's Blush, Jefferis. R. M. Mackey, Oskaloosa: Maiden's Blush, Snow, Early Harvest, Early June.

Johnson.—Wm. T. McClure, Olathe: Red June, Red Astrachan, Rambo, Fall Pippin.

Leavenworth.—Dr. J. Stayman, Leavenworth: Oldenburg, Orange Pippin, Bachelor, Muster.

Miami.—T. A. Stanley, Osawatomie: Early Harvest, Red June, Rome Beauty, Maiden's Blush.

Morris.—Jas. Sharp, Parkersville: Early Harvest, Yellow Transparent, Maiden's Blush, Grimes' Golden.

Nemaha.—J. S. Baldwin, Seneca: Early Harvest, Yellow Transparent, Maiden's Blush, Rambo, Grimes' Golden. [Not signed]: Jonathan, Maiden's Blush.

Osage.—B. M. B. Billings, Osage City: Early Harvest, Maiden's Blush, Oldenburg, Jonathan. H. L. Ferris, Osage City: Early Harvest, Oldenburg, Anton, Jonathan. C. D. Martindale, Scranton: Cooper's Early White, Maiden's Blush, Rambo, Grimes' Golden.

Republic.—O. A. A. Gardner (P. O. Byron, Neb.): Early Harvest, Red June, Maiden's Blush, Lowell.

Riley.—W. Marlatt, Manhattan: Strawberry, Lowell, Maiden's Blush, Fall Wine.

Shawnee.—J. B. Anderson, Rossville: Early Strawberry, Early Harvest, Maiden's Blush, Cooper's White. F. Babcock, North Topeka: Red Astrachan, Grimes' Golden, Jonathan, Huntsman. A. L. Brooke, Topeka: Red Astrachan, Chenango Strawberry, Maiden's Blush, Summer Rambo. W. S. Charles, Topeka: White Summer Pearmain, Grimes' Golden, Rambo. T. W. Harrison, Topeka: Early Harvest, Early Strawberry, Red June, Maiden's Blush, Cooper's Early. D. H. Johnson, Topeka: Maiden's Blush, Golden Sweet, Rambo,

]

]

]

vest, Jonathan, Grimes' Golden. G. W. Van Orsdal, Silver Lake: Maiden's Blush, Red June, Grimes' Golden, Jonathan. F. Wellhouse, Topeka: Red June, Cooper's Early, Maiden's Blush, Grimes' Golden.

Wyandotte.—A. Chandler, Argentine: Red June, Duchess of Oldenburg, Lowell, Rambo, Maiden's Blush. F. Holsinger, Rosedale: Benoni, Early Harvest, Cooper's Early White, Maiden's Blush, Grimes' Golden. Not signed, (1) Orange Pippin, Keswick Codlin, Jonathan.

Summaries of the ballots on the several kinds of fruits will be presented next week.

Preventives and Remedies for Peach Tree Borers.

By C. L. Marlatt, First Assistant Entomologist United States Department of Agriculture, in a bulletin just issued.

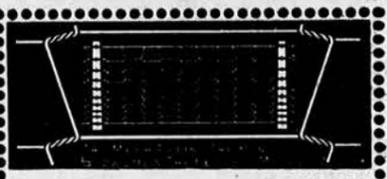
There are two principal methods of preventing injury by this insect, viz.: (1) Means, mechanical and other, designed either to keep the female moth from depositing her eggs on the trees, or at least to prevent the young larvae from effecting an entrance into the bark; and, (2) applications to the trunk, which will poison the larvae in eating in from the outside. All of these preventive measures must be attended to before the emergence of the parent insect, which will vary as indicated in the different latitudes.

There is no better mechanical protection than the one recommended by Harris, in 1826, which consists in removing a little of the earth from about the base of the tree and surrounding the trunk with a strip of sheathing paper eight or nine inches wide, and extending two inches below the soil, secured with strings above and by replacing the soil about the trunk below. The wrappings may be removed in winter and renewed in June. A more durable sheathing for the trunk, described by Dr. Lintner, is one of fine wire netting. Cylinders of this wire fifteen inches long can be secured, it is stated, for about \$12 per 100. Rye or other straw may be bound about the trunks of the trees, or any similar material may be used as a means of mechanical protection. An old remedy consists of mounding up earth a foot or so about the trunks with the same object in view. In late years very good success has been had by coating the trunks with a heavy whitewash, which may be made more tough and persistent by the addition of a little glue or soft soap. All of these applications should extend from a few inches below the surface of the ground upward to a height of one foot to eighteen inches. In the case of the lime coatings the applications may extend up to the lower branches. A protective measure which has very recently been tried successfully in New Jersey (Smith) is in the use of insect lime, either of domestic manufacture or foreign brand, applying it in a coating about three-sixteenths of an inch thick to the trunks of the trees from the ground to the branches, first preferably scraping off the loose bark.

Somewhat allied to mechanical protections are applications to the trunk which are obnoxious to the moths and which may prevent them from ovipositing. Carbolic acid washes are perhaps the best for this purpose, and various formulas have been given. Dr. Lintner quotes Mr. Bateman, of Painesville, O., as having had good success with the following wash: One pint of crude carbolic acid or one-half pint of refined acid, combined with a gallon of good soft soap, and the whole diluted with the addition of eight gallons of soft water. The wash is applied thoroughly with a brush, care being taken to wet all the crevices.

The following similar wash is recommended by Mr. J. H. Hale, the well-known peach-grower of Connecticut: Two quarts of strong soft soap and half a pint of crude carbolic acid, with two ounces of Paris green, are thoroughly incorporated with a bucketful of water and enough lime and clay added to make a thin paste.

The application of poisons to the trunk is a more recent practice, and seems to have been first recommended by Mr. W. H. Ashmead, in 1888, in the suggestion of a strong soap wash, combined with Paris green or London purple; a preferable wash, and one



KEYSTONE WOVEN WIRE FENCE

Will turn your stock. Perfectly safe. 25 to 58 inches high. If interested drop us a card and we will mail illustrated catalogue.

KEYSTONE WOVEN WIRE FENCE CO., 13 Rush St., PEORIA, ILL.

now usually recommended, is an admixture of an arsenical with the lime coating referred to above, using two or three ounces of poison with every pailful of the whitewash. The advantage of the poison is that it effects the destruction of any larvae which may succeed in penetrating the lime. The application recommended by Mr. Hale is allied to the last. The best of the foregoing preventives are the mechanical protections and the lime-arsenical washes. The carbolic acid wash cannot be so thoroughly relied upon.

The measures given above are protective, and do not apply to the larvae already in the trees. Protected as these larvae are, by the covering bark and exudations of gum, they are out of reach of poisons, and there is nothing to do but to cut them out with a knife. They may be easily found and, with a little care, removed without injuring the tree. The adoption thereafter of one or the other of the means already described should prevent the trees from again becoming infested, but should this in any case occur the knife should be promptly used.

THE WHOLE STORY of the wonderful cures by Hood's Sarsaparilla is soon told. It makes the blood rich, pure and nourishing. It cures scrofula, catarrh, rheumatism.

HOOD'S PILLS act harmoniously with Hood's Sarsaparilla. Cure all liver ills. 25 cents.

Every man should read the advertisement of Thos. Slater on page 15 of this paper.

KANSAS HOME NURSERY. Up to date for reliable Fruit and Ornamental trees. Best varieties of Small Fruits in full assortment for all planters in the West. Catalogue free. A. H. GRIESA, BOX J, LAWRENCE, KAS.

SMITH'S SMALL FRUITS FOR SPRING 1897. 100 varieties old and new Strawberries, including Wm. Belt, Brandywine, Paris King, Bissel, Isabel, Barton, Marshall. New Raspberries—Egyptian, Miller, Bishop, Columbian. If you want plants I have two millions for sale. B. F. SMITH, Box 6, LAWRENCE, KAS.

Garnahan's Tree Wash and Insect Destroyer. Destroys the bore worm and apple root louse, protects the plum from the sting of the curculio and the fruit trees from rabbits. It fertilizes all fruit trees and vines, greatly increasing the quality and quantity of the fruit. Agents wanted everywhere to sell the manufactured article. Address all orders to John Wiswell, Sole Mfr., Columbus, Kas., and Cleveland, Ohio.

CHOICE SEED POTATOES

COBURN No. 1.—A new seedling of great vigor; pinkish; short but very bushy vines; white bloom; extra early; eyes shallow; very prolific; indeed; good table potato and a good keeper. Price \$1.25 per bushel, or three bushels for \$3.

EARLY KANSAS.—A large medium variety; russet straw color; medium vines; purple bloom; eyes rather deep, but a great yielder of very large potatoes, and an extra good table potato. Price \$1 per bushel, or three bushels for \$2.25.

GARMAN No. 1.—Same as the Early Kansas, except it has white bloom and does not grow so large tubers. Price \$1 per bushel, or three bushels for \$2.25.

KANSAS FARMER.—A new seedling of great vigor. A late variety, oval, flattened; eyes very shallow; straw color; very prolific; vines medium and spreading; completely covering the row; white bloom; very best of all keepers and a good eater. Surely worthy of its name and a grand potato. Price \$1.25 per bushel, or three bushels for \$3.

Three pecks of each of the above four kinds, \$2.50; packed in lined barrels and delivered at depot free. Write your name, postoffice, county and express office very plainly, and send money with order. I can furnish most of all the leading new kinds.

Address CLARENCE J. NORTON, Morantown, Kansas.

Stark Fruit Book contains new and copyright colored plates of over 100 rare fruits, etc.—write for particulars. Ask for list of Stark Trees—\$3 per 100 and up. STARK BRO'S, STARK, MO.

STARK TREES BEARFRUIT

In the Dairy.

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

Bohoes From the Dairy Meeting.

In the course of his remarks before the dairy convention at Abilene, Prof. Haecker mentioned a test of a grade Short-horn weighing 1,300 pounds. The first week she produced twelve pounds of butter, costing 3.9 cents per pound of butter, or 20 cents per 100 pounds of milk "in food." Four months later the week's test showed a food cost of 13.7 cents for the butter, and 65.6 cents for the milk. Another cow of the dairy type (it "happened to be a Jersey") produced her butter the first week for 4 cents and the milk for 21 cents, and four months later the butter cost only 4.4 cents and the milk 29 cents. A third cow of what might be called an ideal type of general-purpose cow, produced her butter—seven pounds a week—for 7 cents, and the milk for 29 cents the first week, and four months later the butter (six pounds a week), at 10 cents and milk at 47 cents. These general-purpose cows cannot compete with the ideal dairy cow, but he did not know but that in some localities they may pay, though for dairy purposes they are a farce.

He urged feeding and milking the cows in the same order every day, and warned against filling them up with corn stalks, taking the place of more nutritious food. The greatest need of Kansas is a good dairy cow and the knowledge of how to care for her.

Among the many useful hints given by the Professor was the variation in the percentage of fat in the milk, from one milking to another, and from day to day—a variation which had run from 2.6 per cent. up to 4.1 per cent. in one cow's seven-day test.

The audience fired questions at him all the time, and great regret was expressed that not more patrons (farmers) were present. As there were over a hundred creamerymen and butter-makers, all listening attentively, they will be able to spread the gospel to about 8,000 or 10,000 patrons, if they would only get up educational school house meetings.

The Professor spoke of the Jersey cow, Duchess, as producing butter fat in the winter season as low as 3½ cents per pound, "food cost." Of course these are extreme cases and should not lead farmers into the belief that such a record could be kept up throughout the year. Although the Jersey cow had fallen off but little at the end of four months, the Short-horn had more than trebled the cost of her butter and milk in the same length of time. The cow that makes a large showing when fresh, falls off rapidly and goes dry three months, is not profitable as a dairy animal and should be discarded. If farmers in Kansas expect to make the dairy business remunerative, they should adopt some radical changes in themselves, and not lay all the shortcoming on the cow.

Gathered From Many Sources.

From Report of Kansas State Board of Agriculture ("Cow Culture").

Wallace's Farmer puts it thus: "The East has good dairy cows but costly feed. The West has cheap feed but inferior cows. If the East had cheap feed for her good cows, Western dairymen would be killed off. If the West will improve her cows she can absorb the Eastern dairymen."

No underground room was ever yet fit for a human being or a brute to inhabit, nor any more fit to keep milk in. If it be used before a suitable room can be built above ground, a cellar should be cleared of every vestige of vegetable matter, disinfected with lime and plaster, and the walls thoroughly white-washed."

There is nothing aside from the milk of human kindness so necessary to the comfort of any family as the milk of a good cow. It is like oil poured upon the troubled waters of family life; it is a perfect food for the baby; it is an excellent beverage for the children; it furnishes cream for the coffee, butter

for the bread, and cheese for the lunch. It shortens the pie-crust and raises the johnny-cake; even the cat and the dog cry for it. With the farmer it goes still farther. It raises the calf; it feeds the pig; it pleases the colt, and it delights the chickens. Yes, and if he will only give her a fair chance, the cow will clothe the children, buy comforts for the wife, pay the taxes, and help to lift the mortgage.—Rev. T. Currie.

If I wished to bestow a gift upon the farmers, and could do it, I think I should ask that I might give this faith to those engaged in dairying, viz.: That you can raise dairy cows with the absolute certainty of success and no guess-work about it—cows that will make from ten to twelve pounds of butter a week; and it all hinges upon the proper selection both of the dam on one side and the sire on the other. It is not a theory. I have had a fine chance to travel and observe for the last eight years, and I know what I am talking about. If there is anything to make me feel wild it is to see a farmer keep a lot of worthless cows, and breed and feed a cow that will not pay for her keep.—O. C. Gregg.

A patron of the Hoard creameries, who is a close-thinking, intelligent man, in speaking of the low prices of butter, made the following statement the other day: "Taking the price of oats, corn, and all the feed we raise, at market rates, I do not see how I am going to sell that grain and feed to as great advantages as to my cows. Even with butter at 14 cents, I have cows which are paying a fair profit on the feed they consume. The difficulty with us all is, that with these low prices for butter we forget to keep the cow up to her best capacity. We foolishly think we can make more by selling the oats at 15 cents a bushel than to feed them to the cows, when a bushel of oats has the making of three pounds of butter if fed to a good cow. The real kink in the matter is to get the right sort of a cow."—Hoard's Dairyman.

There is no more important inquiry than that connected with cheese-making. The West ships cows to the East, and feed for their consumption, and buys back a large per cent. of the cheese used by the people. This is not a particle short of being ridiculous and astonishing. Wrong theories have been abroad respecting this most valuable article of food. It has been robbed of its fat, and consequently could not retain moisture in curing. The result is that prematurely-ripened cheese have been put upon the market, and the easily-digested, full-milk, ripe, mellow, old cheese is a thing of the past, contemporaneous with the memories of our grandmothers. Skimming has ruined the reputation of American cheese abroad and measurably stopped its use at home. Well-ripened cheese has 50 per cent. more nutriment than beef, and, in countries where it is made, it is the food of the laboring people.—Prof. James Wilson.

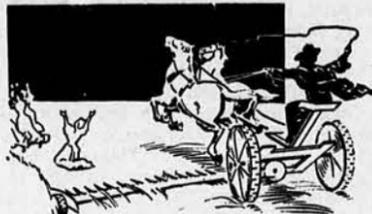
It is the history of all breeds that improving lands makes them mature earlier, and this is accompanied with a lurking propensity to fatten. I am an admirer of all the breeds; each is fitted for its pasture, and American pastures vary from the rich prairie, that grows more grass than average acres elsewhere, to the scant herbage of the mountain side. The best cow at the Royal Agricultural Society of England, in 1892, was an Angus; the next best three were Short-horns. The best butter yields at the Chicago Fat Stock Show, in 1891, were from a Brown Swiss. The world's greatest private record of butter is from a Holstein; and the next highest is from a Jersey. These things will teach us that we can make a breed what we will. Tompkins, who developed such fine beef cattle in the Herefords, said he could as easily have developed fine milkers, and every student of the cow believes him.—Prof. James Wilson.

To the aged, with their poor appetite, feeble circulation and impoverished blood, Ayer's Sarsaparilla is a boon beyond price. Its effect is to check the ravages of time by invigorating every organ, nerve and tissue of the body. See Ayer's Almanac for the new year.

THE REAPER.

"There is a reaper, his name is"—consumption. If all the wars, disasters and pestilences that have swept over the face of the earth from the beginning of history were put together, they would look small and insignificant beside the countless multitudes who have been mown down by the dreadful scourge called pulmonary consumption. One-sixth of the population of the entire globe—men, women and children—die every year of consumption.

Yet consumption is not of necessity a fatal disease. Its awful record of mortality is due to the fact that it comes on so stealthily and mows down its victims before they are aware that it is upon them. If all the people who are threatened with consumption and do not know it could be made to under-



stand their danger, and take proper precautions, there would never be such a terrible record.

Just as soon as a man feels that he is going below his normal weight and condition, that his appetite is becoming irregular or sleep troubled, or there is a "bilious" tendency, it is time to open his eyes and look about him and see how far the dread reaper is behind him. There may be no immediate danger; consumption may be far away. On the contrary it may be close at hand.

Consumption is only the fragment of a great constitutional malady. Its real cause is impurity and poverty of the blood, brought on by morbid weakness of the nutritive powers. The stomach, liver and blood-making glands fail to perform their work; scrofulous poisons accumulate in the blood, become deposited in the lungs, and suddenly a genuine case of consumption is developed out of what was thought to be simply nervous prostration or liver complaint or "general debility."

The one radical and scientific cure for consumption and all the conditions leading up to it is Dr. Pierce's Golden Medical Discovery. It acts directly on the digestive and nutritive powers; strengthens the stomach; stimulates the liver, empowers the blood-making glands to produce an abundance of pure, rich, healthy blood. It vitalizes the circulation, resists the abnormal breaking down of lung tissue, restrains the wasting process in all parts of the body, repairs and rejuvenates the tissues, and builds up solid, healthy flesh and muscular strength.

It overcomes the beginnings of consumption, indigestion, biliousness, nervous weakness, general debility, and all the wasted "run-down" conditions which accompany severe coughs and bronchial affections.

Even in advanced stages, where recovery seems impossible, this wonderful "Discovery" completely cures 98 per cent. of all cases where it is given a proper trial.

Its nutritive properties are far superior to cod liver oil or any of the numerous fat foods so freely offered to the public, because no amount of fat taken into the stomach will do any good until the nutritive forces are capacitated to act and transform the food into healthy

blood. It is not what is eaten but what is assimilated that feeds and builds up the system.

A large percentage of the cures wrought by this wonderful "Discovery" were cases which had already been pronounced hopeless by attending physicians after cod liver oil and all other usual remedies had been tried in vain.

Dr. Pierce's extraordinary success in the cure of special chronic diseases during his thirty years as chief consulting physician of the Invalids' Hotel and Surgical Institute, of Buffalo, N. Y., has given him a world-wide reputation. His wonderful great thousand-page illustrated book, "The People's Common Sense Medical Adviser," is the most comprehensive family medical library ever published. It is now in possession of over a million families in America and Europe. It was formerly sold at \$1.50 a copy; but a free edition in paper covers has been issued of which one copy will be sent absolutely free to any one sending twenty-one 1-cent stamps to pay the cost of mailing only. Address World's Dispensary Medical Association, Buffalo, N. Y. For a handsome cloth-bound copy, send 10 cents extra (thirty-one stamps in all), to pay the additional expense.

"Among the Ozarks."

"The Land of Big Red Apples," is an attractive and interesting book, handsomely illustrated with views of South Missouri scenery, including the famous Olden fruit farm of 8,000 acres in Howell county. It pertains to fruit-raising in that great fruit belt of America, the southern slope of the Ozarks, and will prove of great value, not only to fruit-growers but to every farmer and home-seeker looking for a farm and a home. Mailed free. Address, J. E. Lockwood, Kansas City, Mo.

Memphis Route Holiday Excursions.

On December 21 and 22 excursion tickets will be sold to points in Tennessee, Alabama, Georgia, Mississippi, Florida and the Southeast generally, at rate of one fare, tickets good thirty days for return.

On December 24, 25 and 31 and January 1 excursion tickets will be sold between all stations on the Kansas City, Fort Scott & Memphis railroad and branches (where regular rate exceeds 50 cents), with return limit January 4. J. E. Lockwood, General Passenger Agent.

To St. Paul and Minneapolis via Burlington Route.

Two splendid through trains each day from Missouri river points to the north via the old established Burlington Route and Sioux City line. Day train has handsome observation vestibuled sleepers, free chair cars, and dining cars (north of Council Bluffs). Night train has handsome sleepers to Omaha, Council Bluffs and Sioux City, and parlor cars Sioux City north. Consult ticket agent.

L. W. WAKELEY, Gen. Pass. Agt., St. Louis, Mo.

No Room for Doubt.

When the facts are before you, you must be convinced. The facts are that the UNION PACIFIC is leading all competitors, is the acknowledged dining car route, and great through car line of the West.

The line via Denver and Kansas City to Chicago in connection with the Chicago & Alton railroad, with its excellent equipment of Free Reclining Chair Cars, Pullman Palace Sleepers and Pullman Dining, demands the attention of every traveler to the East. Ask your nearest agent for tickets via this route. E. L. LOMAX, Gen. Pass. and Ticket Agent.

Popular Low-Price California Excursions.

The Santa Fe Route personally conducted weekly excursions to California are deservedly popular. About one-third saved in price of railroad and sleeper tickets as compared with first-class passage.

The improved Pullmans occupied by these parties are of 1896 pattern and afford every necessary convenience. A porter goes with each car and an experienced agent of the company is in charge.

The Santa Fe's California line is remarkably picturesque, and its middle course across the continent avoids the discomforts of extreme heat or cold.

Daily service, same as above, except as regards agent in charge.

For descriptive literature and other information address G. T. Nicholson, G. P. A., A., T. & S. F. Ry., Chicago.

Rose Registered Jersey Cattle and Poland-China Swine

rich in the blood of Coomassie and Stoke Pogis. Service bull, Calvin S. Brice 37820—grandson of Pedro and Marjoram 2d—won first premium New Jersey State fair, 1894, when a calf. Herd bears fashionably bred and high-class individuals. Head herd bear Rosewood Medium 16453 by Woodburn Medium, he by Happy Medium; dam Fantasy by One Price. Assisted by Tecumseh the Great by Chief Tecumseh 2d; dam Mosaic Wilkes by Geo. Wilkes. Second assistant Domino 16734 by What's Wanted Jr.; dam Bonnie Z. by Gold Coin, he by Short Stop. Domino won first, pig under 6 months, Nebraska State fair, 1896. Our SILVER WYANDOTTES are high scorers. We have the best equipped dairy farm and most complete breeding establishment in northern Kansas. Farm in Republic county, near Nebraska State line. Take U. P. or Rock Island railroad to Belleville, or write. JOHN P. TOLFORD, Manager, Chester, Neb.

Gossip About Stock.

The *Swine Breeders' Journal*, of Indianapolis, Ind., and the *KANSAS FARMER*, both one year for only \$1.40.

The next combination brood sow sale by B. R. Adamson and others, of Fort Scott, Kas., has been changed from February 2 to February 10, 1897.

If you want a chance to reinforce and add new blood to your herd of swine, either Berkshires, Poland-Chinas, Chester Whites or Duroc-Jerseys, you will not fail to attend the Kansas Swine Breeders' first annual combination sale, on January 18, 1897. Reduced rates on all railroads. For catalogue address O. P. Updegraff, Secretary, Topeka, Kas.

T. A. Hubbard, proprietor of Rome Park stock farm, Rome, Kas., authorizes us to state that during the month of December he will sell thoroughbred Poland-China and Large English Berkshires as follows: One-half cash and a good bankable note drawing 10 per cent. for one year for the balance. The hogs are extra quality. Males, either breed, \$25; gilts bred, \$25. Send orders at once and get the benefit of this special offer.

H. L. Leibfried, manager Sunny Slope arm, Emporia, Kas., was in Topeka, recently, and to a *FARMER* representative said: "We are now building a large barn joining our other barn. It will be 114 feet long and more extravagantly finished. Under these circumstances it will be impossible for us to send a hog to the breeders' sale. We would like to be in the sale but can't. We sold over \$2,000 worth of Hereford bulls and heifers the past week to Western parties. That is a pretty fair business for us. We have been doing good business since your Mr. Heath was here. I think it is on account of his visit, as we have had a good trade ever since."

Attention is directed to the new Poland-China breeder's card of the Standard herd, owned by William Maguire, of Haven, Reno county, Kansas. He has some very desirable stock for sale, consisting of a choice lot of gilts sired by Ideal U. S., he by Ideal Black U. S., and out of Corwin, Wilkes and King Butler sows. These gilts will be bred to Tecumseh Chief, he by Tecumseh 2d. The gilts offered for sale are large, growthy, heavy-boned, good shoulders, backs, hams and color. Be sure and get prices before buying, or, better, go and see the stock and you will surely invest, as the prices and stock are very attractive to up-to-date hog men.

Publishers' Paragraphs.

Send \$1.35 to KANSAS FARMER office for one year's subscription to *KANSAS FARMER* and *Chicago Weekly Inter-Ocean*.

Remember that you can get the *KANSAS FARMER* and the *Kansas City Daily Star*, both for one year, for \$4, or the *KANSAS FARMER* and the *Kansas City Weekly Star* both for one year, for \$1.20.

We can furnish you *KANSAS FARMER* and *Peterson's Magazine*, each one year, for \$1.75. Or *KANSAS FARMER* and *Arthur's Home Magazine* for \$1.65. Send to this office amounts above named.

Every farmer's wife is interested in having the best appliances for preparing meats for the table. The *Victor Meat Tender Co.*, of Cincinnati, O., advertise an article to make tough meat in condition to be enjoyed at table.

"Dairying for Profit, or the Poor Man's Cow," is practical, was written by a woman who knows what she is talking about, and is cheap—only 10 cents for a 25-cent book, to subscribers for the *KANSAS FARMER*. Send to this office.

The *Home Magazine*, published at Washington, D. C., is brighter and better than ever. One dollar and 20 cents sent to *KANSAS FARMER Co.*, Topeka, Kas., will pay for one year's subscription to both *KANSAS FARMER* and *Home Magazine*. Drop us a card and we will send you a sample copy of the magazine.

The knowledge, how to make a profitable as well as beautiful garden, would be a valuable acquisition to any farmer or farmer's wife. The excellent magazine called *American Gardening* will impart the desired information. Send to *KANSAS FARMER* \$1.15 and it will pay one year's subscription to *KANSAS FARMER* and *American Gardening*.

Although somewhat early for the selection of seed corn to be planted next spring, yet it will pay our readers to read the advertisement of J. B. Armstrong in this issue of *FARMER*. Mr. Armstrong is proprietor Pleasant Valley Seed Corn Farm, at Shenandoah, Iowa, and has made a specialty for many years, the growing of Northern tested seed corn. He is thoroughly reliable and has been known to the *KANSAS FARMER* for many years.

The De Laval Separator Co., so well known to Kansas dairy interests, have for many years sustained a Western depot at Elgin, Ill., but last week they removed

their Western offices, stores and shops from Elgin to Chicago. This removal is necessary because of the increased business in the West, which requires a more central and advantageous location. Our readers interested in supplies of any sort for the De Laval separator can address the company hereafter at Chicago.

The annual illustrated catalogue of F. Barteldes & Co.'s Kansas Seed House, Lawrence, Kas., is out and should be in the hands of every one who has to buy field, garden, flower or tree seeds or garden implements. This house is one of the largest and best in the United States, and is a well-established and reliable concern that especially deserves Western patronage. The 100-page illustrated catalogue may be had free by any one interested, simply by requesting it and mentioning this paper.

McBeth & Kinnison, seedsmen, Garden City, Kas., are making a special drive on alfalfa seed, the Western "mortgage-lifter" and king of forage plants. Their celebrated seed house is located in the very heart and center of the best alfalfa seed producing district of the United States, and they claim that on account of the altitude and dry climate of that region the seed matures better and is more vigorous than that grown in other districts. While alfalfa is their specialty, they also handle all kinds of field and garden seeds. This firm is a representative and reliable one, as is shown from the fact that they now have customers who have purchased seeds from them for the past eight years, and an evidence of their responsibility is this fact, and their constantly increasing business from year to year indicates the popularity of this Western seed house. Write them your wants.

215 Bushels of Corn Per Acre.

Last spring prizes amounting to \$500 were offered for the best crop of the new "Iowa Silver Mine Corn" grown on one acre.

The reports have been astonishing to the introducers, although they knew that the corn was a most wonderful cropper. A very large number of the reports range between 100 and 200 bushels, but the prize-winner grew 14,190 pounds of ear corn, or 202 bushels 50 pounds. An average bushel of 70 pounds of this corn when shelled weighed 59½ pounds. Figuring in this way, it would make the total crop of shelled corn to the acre 215 bushels 20 pounds, or the largest crop of corn ever grown in any of the corn-producing States, and with one exception, the largest crop ever grown in the world.

It was an Iowa farmer who won the prize, Claus Jochimsen, of Scott county, Iowa. He is a well-to-do German farmer and is greatly pleased with the result of his corn crop this year, as it earns for him the reputation of being the best corn-grower in America, or in the world.

The ground where this corn was grown was a slough in the center of a corn field, which had been thoroughly drained and was plowed for the first time two years ago. Last year wheat was planted on the ground, but the soil was so rich that the crop was a failure. This spring, to prepare for the prize crop, fifteen loads of barnyard manure were hauled and carefully spread over the patch of ground, which was 476 feet long by 93½ feet wide, thus making 43,506 square feet, or 54 feet less than one acre. The ground was plowed deeply on May 10, thoroughly harrowed, and marked with a corn-planter at the time the balance of the field was planted, but the dropper was shut off when the machine passed over this strip. The corn-planter opened drills three and a half feet apart, and on May 12, seed was dropped by hand, using one peck of the corn to plant the acre, and it was covered with the feet, the ground afterwards being harrowed. The corn was cultivated three times, hoed and weeded twice, thinning the corn so that the stalks stood separate, not less than eight inches and not over twelve inches apart in any place.

The corn was surrounded by a yellow variety so that it is not fit for seed purposes.

The field was level, high ground, black loam, with a clay subsoil. The field had special attention, as will be observed, throughout the season. Before the corn was gathered, the farmer removed two rows of the other corn on all sides around this strip so as to thoroughly separate it. Although the other corn was a different color, still he did not want any chance of an ear of corn from the other part of the field to be mixed with this. On November 9 and 10, after the corn was thoroughly matured and dry, it was gathered by Mr. Jochimsen and two of his neighbors. As fast as it was gathered it was hauled immediately to the nearest public scales and there carefully weighed, and the weights of each load recorded. The Iowa Seed Co., of Des Moines, Iowa, were the introducers of this variety of corn, and to verify the report signed by Mr. Jochimsen and two of his neighbors, the President of this company personally inspected the field and the corn grown on it, measuring the ground



Used and Endorsed by Adams Express Co.

**It Has Stood the Test of Time.
It Never Fails to Give Satisfaction.**

There are so many ways this wonderful remedy can be used to better advantage than any other that it has become widely known as a stable necessity.

DON'T FAIL TO TRY

TUTTLE'S ELIXIR.

It is a tried and never-failing cure for Colic, Ringbone, Horse Ail, Curbs, Splints, Sweeny, Shoe Bolls when first started, Spavins, Cockle Joints, Contracted and Knotted Cords, etc.

Circulars containing proof of its wonderful merits will be mailed to any address on receipt on three 2-cent stamps to pay postage. Address at once

S. A. TUTTLE, 27 Beverly St., Boston, Mass.

THE STRAY LIST.

FOR WEEK ENDING DEC'R 10, 1896.

Lyon county—M. Q. Starr, clerk.
MARE—Taken up by Frederick Kluth, in Center tp., November 19, 1896, one black mare, about 4 years old, white spot in forehead, medium size, no brands visible; valued at \$15.
TWO STEERS—Taken up by J. E. Rathke, in Center tp., November 11, 1896, one red steer, white face, 4 years old, medium size, indistinct brand on left side; valued at \$25. And one blue-roan steer, 4 years old, medium size, indistinct brand on left side; valued at \$25.
TWO MARES—Taken up by F. A. Layton, in Agnes City tp., November 30, 1896, one black mare, 4 years old, white spot on forehead and nose; valued at \$15. And one bay mare, coming 2 years old, white spot in forehead; valued at \$15.

Wilson county—T. D. Hampson, clerk.
MARE—Taken up by R. R. Brinkley, in Clifton tp., November 27, 1896, one brown mare, right hind foot white and white spot in face, 3 years old; valued at \$20.

FOR WEEK ENDING DEC'R 17, 1896.

Cherokee county—T. W. Thomason, clerk.
MARE—Taken up by C. N. Shigley, in Shawnee tp., November 21, 1896, one light bay mare, fifteen hands high, wire cut on right hind leg, weight about 850 pounds; valued at \$15.
Chase county—M. C. Newton, clerk.
STEER—Taken up by M. Gamer, in Diamond Creek tp. (P. O. Strong City), November 10, 1896, one yearling steer; no marks or brands.

Coffey county—T. N. Bell, clerk.
STEER—Taken up by T. F. VanArsdale, in Pleasant tp., one red and white steer, grown, no horns, branded 1 or (1) on left hip, weight 1,100 pounds; valued at \$20.

Norton county—D. W. Grant, clerk.
STEER—Taken up by Henry Shoaf, in Model tp., October 15, 1896, on red yearling steer, dehorned, small white spots on sides; valued at \$12.

Greenwood county—J. F. Hoffman, clerk.
MULE—Taken up by John Webb (P. O. Twinfalls), November 19, 1896, one brown horse mule, 2 years old, slit in right ear, no brands; valued at \$25.
MULE—By same, one black mare mule, 2 years old, no marks or brands; valued at \$25.

FOR WEEK ENDING DEC'R 24, 1896.

Allen county—James Wakefield, clerk.
CALF—Taken up by J. H. Wood, in Elsmore tp., one red muley steer calf, about 6 months old, no marks or brands; valued at \$10.

Wabausee county—J. R. Henderson, clerk.
TWO COLTS—Taken up by C. N. Fair (P. O. Alma), November 23, 1896, two colts, supposed to be 3 years old—one dark bay horse colt, white spot in forehead, no other marks or brands; one bay mare colt, no marks or brands; valued at \$12 each.

Linn county—William H. Ward, clerk.
COW—Taken up by William Barker, in Potosi tp., November 11, 1896, one red cow with crumpled horns, switch off tail, slit in right ear, weight about 1,000 pounds, will drop calf soon; valued at \$18.

FREE TO ALL WOMEN.

I have learned of a very simple home treatment which will readily cure all female disorders. It is nature's own remedy and I will gladly send it free to every suffering woman. Address
MABEL E. RUSH, Joliet, Ill.

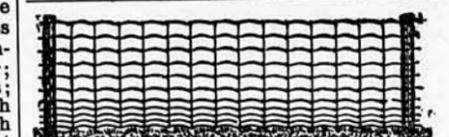
Northern - Grown Tested Seed Corn!

Early Yellow Rose, Snowflake White, Pride of the North, Armstrong's Mortgage Lifter. These famous varieties of corn will be sold this year (1896-97) at \$1 per bushel; sacks 20c. Five-bushel lots sacks free. Send 5c. in stamps for a package of each of the above named corn and "Hints on Corn Growing"—a 12-page book—and how up-to-date farmers grow the big crops of 100 to 150 bushels per acre in 90 to 100 days. Address J. B. ARMSTRONG, Pleasant Valley Seed Corn Farm, Shenandoah, Iowa.

NO MORE TOUGH MEAT

The Victor Meat Tender.
Not a pounder. Noiseless. Greatest household utensil ever invented. Any child can use it.
Makes Tough Meat Tender as a Tenderloin.
To introduce it, will deliver free at your express office on receipt of \$1.
Victor Meat Tender Co., Cincinnati, Ohio.

Parker's Arctic Sock, Best for RUBBER BOOTS.
Absorbs perspiration. Recommended by Physicians for house, chamber and sick-room. Made in Men's, Women's and Children's. Ask shoe dealer or send 25c. with size to J. H. PARKER, 103 Bedford St., Boston, Mass. Dept. 17. Take no substitute. Parker Pays the Postage.



Are You Insured?

Strange that a man will insure his buildings against fire and lightning, which come so seldom and yet take chances on destruction of crops and other losses arising from inefficient fences. Page fence is a permanent investment and the interest on that is the cost for absolute safety. Write for proofs.

PAGE WOVEN WIRE FENCE CO., Adrian, Mich.

with a tape-line and also with a regular land measure. He examined and estimated the corn in the crib. As there was no other white corn grown on the place, there was no chance for a mixture. He also talked with the public weighmaster, with the postmaster, and a number of the neighbors, and came away thoroughly convinced that the statement was correct in every particular. There were competitors for this prize from almost every State in the Union. In Arkansas it yielded 188 bushels; in Nebraska and Ohio, 135; in Texas, 128 bushels, etc.

The only case ever known of a larger crop than this was of the White Gourd seed corn, a large Southern variety, too late to be grown in any of the States in the corn belt. This most wonderful yield can be more fully appreciated when it is known that the corn crop average of the United States is only twenty-eight bushels per acre. It is also pleasing to know that this corn was grown without using any of the commercial fertilizers, while the cost of fertilizers used on the Gourd seed corn mentioned above was \$226.92. The crop was a wonderful sight as it stood on the ground. The season was very favorable. If it had happened to have been a wet season the crop would have been ruined.

The next largest crop ever reported was grown in New York State, consisting of 213 bushels, green weight, or 191 bushels cribbed, of Clark's Early Mastodon corn, and fertilizers to the amount of \$17.50 were used in growing it. The Iowa Silver Mine corn has earned the reputation of being the heaviest yielding corn in America, and there will doubtless be an immense demand for seed from farmers in all parts of the United States.

Kalamazoo, Mich., is famous for celery—also as the home of Thos. Slater, whose advertisement appears on page 15.

To Chicago, St. Louis and the East via Burlington Route.

The traveling public is sure to find the best fast vestibuled trains to the East via the Burlington Route.

Handsome new compartment sleepers (same rate as standard sleepers), chair cars (seats free), Kansas City and St. Joseph to St. Louis; standard sleepers, chair cars and dining cars—"pay for what you order"—to Chicago. Take the "Vestibuled El" to Chicago and the "Vestibuled Limited" to St. Louis.

Ask agent for tickets via the Burlington Route.
L. W. WAKELEY, Gen. Pass. Agt., St. Louis, Mo.

Ho! for Cripple Creek.

Remember that the Chicago, Rock Island & Pacific is the only line running directly from the East to Colorado Springs, the natural gateway to the Cripple Creek District.

Colorado Springs lies at the foot of Pike's Peak at its eastern base, and Cripple Creek is part way down the southwest slope of Pike's Peak and near its western base.

Two all rail routes from Colorado Springs are offered you. One by the Midland railway up Ute Pass, via Summit, to Cripple Creek. Another over the Denver & Rio Grande, via Pueblo and Florence, to Cripple Creek. Take the great Rock Island Route to this wonderful gold mining camp. Maps, folders and rates on application. Address
JNO. SEBASTIAN, Gen'l. Pass. Ag't., Chicago.

To Colorado, Montana, Hot Springs, Puget Sound and Pacific Coast via Burlington Route.

Take the shortest and most desirable line to the far West; complete trains from the Missouri river. Daily train leaves Kansas City at 10:40 a. m., arrives Billings, Montana, 1,050 miles distant, 6:45 next evening; free chair cars Kansas City to Billings; sleepers Kansas City to Lincoln; through sleepers Lincoln to Billings. Connects with fast train beyond to Montana and Puget Sound. Ten to twenty-five hours shorter than other lines from Kansas City.

Through sleepers and chair cars Missouri river to Denver; Rio Grande scenic line beyond for Colorado, Utah and California.

Ask agent for tickets over the established through lines of the Burlington Route.
L. W. WAKELEY, Gen. Pass. Agt., St. Louis, Mo.

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. N. S. MAYO, Professor of Veterinary Science, Kansas State Agricultural college, Manhattan, Kas.

DISEASED TEETH.—I have a three-year-old mare that has a swelling on each side of her lower jaw which has broken and runs some. The swelling seems to be a thickening of the bone. I took her to a horseman, who said a horse's lower teeth were never diseased. He gave her some condition powders, but she does not improve.

Byron, Okla. Ed. D.
Answer.—From your description I think your mare has diseased teeth. It may come from shedding the temporary molars or ulceration of the roots of the permanent molars. A horse's lower teeth are just as subject to disease as the upper molars. It will be necessary to have her teeth treated by a competent veterinarian. With diseased teeth there is usually a disagreeable smell of the saliva. Wet your finger in the horse's mouth and smell of it.

LAMENESS.—I have a horse lame in the foot, leg or shoulder. He has been lame three weeks. He doesn't show it much in walking or trotting on soft ground.

Junction City. R. W. S.
Answer.—It is impossible to diagnose lameness by mail. As four out of five cases of lameness in the fore legs is in the foot, and as the horse doesn't limp on soft ground, I think it is probably in his foot, but I am unable to say which foot. In limping, a horse "drops" on the well foot. Have a good shoeing smith examine his foot. If he steps on the toe, put on a shoe that will raise his heel a little and vice versa. If the foot is hot and dry poultice it.

To Correspondents.

Please state the symptoms and conditions in full. I condense them for publication. Be sure and state that you wish a reply through the KANSAS FARMER. Try and get your questions to me by the last of the week, as I send the answer to the printer every Monday.

N. S. MAYO.

We are not surprised that people will not take a new cough remedy, when they know the value of Dr. Bull's Cough Syrup.

Did You Ever See an Indian?

Expect not, so send a 2-cent stamp to the General Passenger Agent Colorado Midland Railroad, Denver, and he will send you a fine colored picture of one.

Unequaled Service

Denver to Chicago via Kansas City is given via the UNION PACIFIC and Chicago & Alton railways. Through Pullman Sleepers, Pullman Dining Cars and Free Reclining Chair Cars leave Denver Daily. The Union Pacific is the great through car line of the West. Ask your nearest ticket agent for tickets via this line.

Gen. Pass. and Ticket Agent, Omaha, Neb.

A Look Through South Missouri for Four Cents.

The Kansas City, Fort Scott & Memphis Railroad Company has just issued a magnificent book of sixty or more photo-engraved views of varied scenery in south Missouri. From these views an accurate knowledge can be obtained as to the productions and general topography of that highly-favored section that is now attracting the attention of home-seekers and investors the country over.

The title of the book is "Snap Shots in South Missouri." It will be mailed upon receipt of postage, 4 cents. Address J. E. Lockwood, Kansas City, Mo.

Meals on the "Order" Plan

are now served in the dining cars run by the Great Rock Island Route between Kansas City and Chicago. This change has been made to suit the convenience of the traveling public, and with the belief that such an arrangement will better please our patrons. All meals will be served a la carte, and at reasonable prices. While the system of serving meals has been changed, the traveler may still rely upon the excellence of cuisine and perfection of service that have earned for the Rock Island the reputation of maintaining the best dining car service in the world.

JOHN SEBASTIAN, G. P. & T. A., Chicago, Ill.

Horse Owners! Use GOMBAULT'S Caustic Balsam



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

MARKET REPORTS.
Kansas City Live Stock.
 KANSAS CITY, Dec. 21.—Cattle—Receipts since Saturday, 8,131; calves, 479; shipped Saturday, 550 cattle, 197 calves. The market was slow, but generally steady. The following are representative sales:

SHIPPING AND DRESSED BEEF STEERS.			
No.	Ave. Price.	No.	Ave. Price.
51.....	1,021 \$4.85	54.....	1,500 \$4.70
57.....	1,456 4.65	41.....	1,372 4.35
19.....	1,309 3.90	19.....	1,293 3.65
21.....	1,190 3.60	8.....	1,037 3.00

TEXAS AND INDIAN STEERS.			
50 cf.....	1,445 \$4.00	39.....	1,267 \$3.65
48.....	1,152 3.35	13.....	1,061 3.25
94 stk.....	732 3.25	24.....	725 2.80
5 Ind.....	830 2.50	68 stk.....	450 2.40

NATIVE HEIFERS.			
1.....	1,160 \$3.00	31.....	757 \$3.45
65.....	753 3.15	60.....	795 3.05
31.....	755 3.00	3.....	823 2.85
12.....	808 2.85	1.....	780 3.75

NATIVE COWS.			
2.....	1,475 \$3.40	2.....	1,235 \$3.00
2.....	1,320 2.75	7.....	1,045 2.50
17.....	923 2.40	6.....	888 2.00
5.....	734 1.85	1.....	883 1.25

NATIVE STOCKERS.			
2.....	654 \$3.85	7.....	825 \$3.70
2.....	655 3.70		

Hogs—Receipts since Saturday, 9,114; shipped Saturday, none. The market was steady to strong. The following are representative sales:

75...180 \$3.32½	69...191 \$3.30	91...181 \$3.30
73...219 3.30	92...211 3.30	83...215 3.30
83...206 3.30	88...211 3.31	79...196 3.27½
68...223 3.27½	90...212 3.27½	96...208 3.27½
70...264 3.25	11...196 3.25	67...230 3.25
147...226 3.25	66...251 3.25	62...260 3.25
110...170 3.25	71...267 3.25	88...197 3.25
73...198 3.25	96...201 3.25	51...274 3.22½
57...281 3.22½	55...273 3.22½	97...227 3.22½
73...256 3.20	59...297 3.20	15...314 3.20
6...161 3.20	23...309 3.17½	55...326 3.17½
6...238 3.15	34...276 3.15	30...144 3.15
57...316 3.15	37...296 3.15	5...306 3.07½
30...356 3.10	1...380 3.10	5...390 3.00
3...306 3.05	87...164 3.05	1...390 3.00
66...104 2.95	25...95 2.95	62...115 2.95
12...116 2.95	82...158 2.95	92...131 2.90
64...163 2.90	1...800 2.75	5...100 2.60

Sheep—Receipts since Saturday, 3,950; shipped Saturday, 767. The market was active and strong to 10c higher. The following are representative sales:

179 nat lbs....	97 \$5.00	63 sh. lbs....	7: \$4.20
63 sw. sh.....	102 2.50	238 N. M. sh..	9: 2.90

Chicago Live Stock.
 CHICAGO, Dec. 21.—Cattle—Receipts, 16,000; market steady, common grades weak, quality poor; fair to best beefs, \$3.40@5.15; stockers and feeders, \$2.70@3.85; mixed cows and bulls, \$1.60@3.90; Texas, \$3.00@4.25.

Hogs—Receipts, 38,000; market opened strong to 5c higher, closed weak; light, \$3.25@3.45; rough packing, \$3.00@3.10; mixed and butchers, \$3.20@3.45; heavy packing and shipping, \$3.45@3.50.

Sheep—Receipts, 15,000; market for sheep steady; lambs 25c lower; native, \$2.00@3.25; western, \$2.75@3.50; lambs, \$3.25@5.00.

St. Louis Live Stock.
 ST. LOUIS, Dec. 21.—Cattle—Receipts, 4,000; market steady.

Hogs—Receipts, 7,000; market heavy, steady; light, slow; Yorkers, \$3.15@3.25; packers, \$3.00@3.20; heavy, \$2.90@3.30.

Sheep—Receipts, 3,000; market steady.

Chicago Grain and Produce.

Dec. 21. Opened High'st Low'st Closing

Wh't-Dec....	76½	77	76½	76½
May.....	79½	80½	79½	79½
July.....	73½	74½	73½	74½
Corn-Dec....	22½	22½	22½	22½
Jan.....	22½	22½	22½	22½
May.....	25	25½	25	25
Oats-Dec....	18½	18½	18½	18½
Jan.....	19½	19½	19½	19½
May.....	19½	19½	19½	19½
Pork-Dec....	7 02½	7 02½	7 02½	7 02½
Jan.....	7 02½	7 02½	7 02½	7 02½
May.....	7 02½	7 02½	7 02½	7 02½
Lard-Dec....	3 82½	3 82½	3 82½	3 82½
Jan.....	4 07½	4 07½	4 02½	4 02½
May.....	3 85	3 87½	3 85	3 85
Ribs-Dec....	3 85	3 87½	3 85	3 85
Jan.....	4 02½	4 05	4 02½	4 02½
May.....	4 02½	4 05	4 02½	4 02½

Kansas City Grain.
 KANSAS CITY, Dec. 21.—Receipts of wheat to-day, 59 cars; a year ago, 110 cars.

Sales were as follows on track: Hard, No. 2, 3 cars 79c; No. 3, 2 cars 75c, 2 cars 74c; No. 4, 1 car 66c, 4 cars 65c, 2 cars 64c, 4 cars 63c, 2 cars 62c; rejected, 2 cars 62c, 1 car 61c, 1 car 60c. Soft, No. 2 red fancy, offered at 93c; No. 3, 1 car 93c; No. 4, 1 car 79c. Spring, No. 2, 1 car choice 78c, 2 cars 76c, 1 car 75c, 1 car 74½c, 3 cars 74c; No. 3, 3 cars 74c, 4 cars 71c, 1 car 70c, 1 car white 70c; rejected, 1 car 65c.

Receipts of corn to-day, 234 cars; a year ago, 152 cars.

Sales by sample on track: No. 2 mixed, 3 cars 18½c, 6 cars 18c; No. 3, 19 cars 17½c, 26 cars 17½c; No. 4, 3 cars 17½c; No. 2 white, 2 cars 19c, 2 cars 18½c; No. 3, 3 cars 18½c, 1 car 18½c, 5 cars 18c; No. 4, 1 car 18c.

Receipts of oats to-day, 27 cars; a year ago, 9 cars.

BROOMCORN F. JELKE & SON
 Established 1850.
 53 Walnut St., Cincinnati, O.
 Commission Merchants and Dealers in Broomcorn and all kinds of Broom Materials and Machinery.
 Cash Advances Made on All Consignments.
 REFER TO ANY CINCINNATI BANK.
 WRITE FOR FULL PARTICULARS.

"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 solid, lasting flesh. It regulates the bowels, keeps the skin loose, and the hair soft and glossy. It will fatten every animal on the farm quickly.
FREE For a 2-cent stamp to cover cost of postage, we will send you one of our handsome 1897 steel-engraved, gold-embossed "F" calendars, which is a beauty.
TOPEKA LINSEED OIL WORKS, Topeka, Kansas.

GRAY IRON CASTINGS
 Brass Castings, Aluminum Castings, Castings of Any Kind.
 SEND TO
THE TOPEKA FOUNDRY, TOPEKA, KAS.

LIGHTNING HAY PRESS
 STEEL
 Special prices.
 Kansas City Hay Press Co. 129 Mill St. Kans. City Mo



No. 4, nominally 14@11c; No. 2 white, new, 1 car 21c, 1 car 19c; old, 1 car 22½c; No. 3, new, 2 cars 17½c, 1 car 17c; No. 4, new, 2 cars 15c.
 Hay—Receipts, 62 cars. The market is steady. Choice timothy, \$8.00@8.50; No. 1, \$7.00@7.50; No. 2, \$6.00@6.50; clover, mixed, No. 1, \$5.00@5.50; No. 2, \$4.50@5.00; choice prairie, \$5.50; No. 1, \$4.50@5.00; No. 2, \$4.00@4.50; No. 3, \$3.00@3.50.

Kansas City Produce.
 KANSAS CITY, Dec. 21.—Butter—Creamery, extra fancy separator, 20c; firsts, 18½c; dairy, fancy, 13c; fair, 10c; store packed, 8c; packing stock, 6c; country roll, neatly packed and sweet, 10@12c; choice, 8@10c.

Eggs—Strictly fresh stock, 17c per doz.; cold storage stock, 12½@13c.

Poultry—Hens, 40c; roosters, 12½c each; springs, 5c; coarse springs and roosters, 4c; broilers, from 1½ to 2 lbs., 6c; turkeys, over 7 lbs., 7½c; under 7 lbs. not wanted; old gobblers, 5c; ducks, 6½c; geese, 5c; pigeons, 75c per doz.

Apples—Choice eating stock sells from 40¢ to 60¢ a bu.; inferior, 30¢ to 35¢ a bu.; cooking stock, 20¢ to 35¢; Ben Davis, 20¢ to 40¢; Wine Saps, 40¢ to 65¢, according to quality; Huntsman's Favorite, 60¢ to 75¢ per bu. for fancy stock in a small way; shippers are paying for Northern Spy \$1.00 a bbl. in car lots; for fancy fall and winter varieties, \$1.00@1.25 a bbl.; Jonathans, \$1.50 a bbl. for fancy and 75¢@1.00 for No. 2 stock; New York and Michigan stock, \$1.00 per bbl.

Potatoes—Home grown, 20c in a small way; 16@17c in car lots; Wisconsin and Minnesota Burbanks, 35¢ to 36¢ in car lots, 40¢ in a small way; Pearls, 2c less; Iowa stock, 25¢ to 28¢ in car lots, 30¢ to 35¢ in a small way; sweet potatoes, 20¢ to 40¢ in a small way.

St. Louis Seed Market.
 Trading mostly in clover. Clean, bright seed in demand and steady; while inferior to fair ruled slow and low-priced. Other seeds in light offering and unchanged. We quote, per 100 lbs.: Timothy—Clean, bright at \$2.35@2.40, fair at \$2.25@2.30, off grades at \$1.50@2. Clover—Prime, bright \$6@6.18, fair to good at \$5@5.50, poorer lots at \$2@4. Millet and Hungarian nominal at 45¢ to 50¢ for inferior to 60¢ to 65¢ for the best. Redtop—Good, clean at \$5.50@7, fancy worth \$12@13, but trashy and inferior at \$1@2. Sales: Clover—9 sks at \$3.90, 3 at \$4.50, 4 at \$5.38, 1 at \$5.65, 18 at \$5.93, 7 at \$5.98. Redtop—Small lot at \$1.25.

Flaxseed—Opened steady, 1 car selling Monday at 75c; lower bids at 74c Tuesday, 73c Wednesday, 72c Thursday, yesterday and to-day.

Castor Beans—Nominally steady at \$1.25 for prime in car lots, but none offering—really in demand, though. Small lots and inferior 5@15c less.

GRASS AND FIELD SEEDS
 MITCHELL & RAMSEY,
 ST. JOSEPH, MISSOURI.

SALESMEN to sell Cigars to dealers; \$25 weekly and expenses; experience unnecessary. Reply with 2c stamp. National Consolidated Co. Chicago

When writing to advertisers please mention KANSAS FARMER.

Consign Cattle, Hogs and Sheep to
LONE STAR
 Commission Company
 for best results. A new company. Capital \$100,000. Telephone 1108. Market reports furnished.
 Write us. KANSAS CITY STOCK YARDS.

MOFFETT BROS. & ANDREWS
 Live Stock Commission Merchants.
 Feeders and stockers purchased on orders. Personal attention given to all consignments. Correspondence invited. Market reports furnished.
 References:—National Bank of Commerce, Kansas City, Mo.; Citizens' State Bank, Harper, Kas.; Bank of Kiowa, Kiowa, Kas.
 Rooms 67-68 Live Stock Exchange, Kansas City, Mo.

OVERCOAT Made of a fine very heavy-weight Beaver, smooth face, well lined, trimmed and sewed; farmer's satin lined, velvet collar, fly front. In black, dark navy blue, or a beautiful shade of tan or medium light brown. Our Catalogue No. 18 shows the style and quotes many other overcoat bargains. Our price \$6. Sent FREE, our Mammoth Catalogue, quoting everything, on receipt of 10 cents to pay postage.
 H. R. EAGLE & CO.,
 68 and 70 Wash Ave., Chicago, Ill.

ELEGANT HOLIDAY GIFT.
 What Shall We Do With Our Boys and Girls?
 How a Farmer's Daughter Earned \$25,000.00 In Eleven Years.
 BY THE GIRL WHO DID IT.
 THIRD EDITION. ILLUSTRATED.

Acknowledged to be the best help for young people ever published.
 It recognizes the fact that the strongest and best business men were reared as farmers' boys, and that the farmers' girls are the best and most useful girls, and that both should be shown the way and helped to rise.
HANDSOME CLOTH BOUND VOLUME
 225 Pages, \$1.00 Prepaid.
 If your dealer has not got it send Postal Note or Money Order to
The Anna C. Reifsnider Book Company,
 Mention this paper. ST. LOUIS, MO.

The Poultry Yard

SEASONS AND DISEASES.

Each Parish Has a Poultry Allment of Its Own.

We have four seasons, and each one has some peculiar disease to which the fancier can expose his fowls. Spring is the most healthful of the four, yet we take our birds from their winter quarters and turn them loose in the breeding yard and they will eat too heartily of the green grass, and several will be found crop-bound a day or two later. No matter how much green feed is given in winter, grass will be taken in too large quantities in the spring. Summer brings the molting season and with it come numerous diseases. Cholera always makes its appearance at the negligent fancier's place. No disorder is so rapidly destructive, and yet there is less necessity for this disease than almost any other. It springs with fowls just the same as with the human family. Probably no disease has been blamed for the effects of other disorders so much as cholera. I remember when I was a boy that everything going in the summer was called cholera. Even if the old hen's leg was broken my grandmother would say she had the cholera and would have to be killed to keep the disease from spreading. Death comes very quickly with genuine cholera, and a whole flock will die when only a few sick ones can be seen about the place. They are apparently well to-day and dead to-morrow. Autumn brings that which is worse than cholera — cold, roup, canker, etc. With a case of genuine roup there is no cure. As the disease advances the fowl becomes very poor, has a ravenous appetite, but takes on no fat. Roup may continue on to winter, and even through it. Winter is the season of frozen combs and feet if one has not comfortable quarters.—Ohio Poultry Journal.

MARKETING TURKEYS.

Birds of Medium Size and Weight Are the Best Sellers.

We can offer a pointer on marketing turkeys that we discovered while buying Christmas turkeys in the city market, and that is the superiority of medium-sized turkeys over 20 to 24 pounders, as sellers. People, as a rule, do not want enough turkey at one time to lay a banquet spread, and consequently they pick for something small, or not exceeding medium in size.

The hen turkeys always sell first, simply because they are more suited in size to the wants of the ordinary family. Then the smaller gobblers go, and lastly the pride of the flock—the biggest tom in the lot—and he usually goes at a discount of two or three cents a pound less than the lesser weights.

A turkey that weighs from ten to fifteen pounds dressed is plenty large enough. The people don't want a turkey as big as a hog, but they do want a fat turkey.

It seems to us that there is a good deal of room for improvement in breeding turkeys for the market. That a bird shorter in legs and neck, and very full in the breast, would be more desirable. One that would be meaty and plump, and capable of taking on a great deal of fat.

The heavy weight, tall, rawboned toms that weigh 25 to 40 pounds may be suited to a barbecue feast, but they are not the kind that the man with an ordinary size market basket looks for when he goes to the city market.

There would be more demand, and better sale for turkeys all the year through, if they were grown more with a view to compact body, meat and fat, than for large size and coarse structure.—H. B. Geer, in Midland Poultry Journal.

Our Great Poultry Industry.

During the last quarter of a century the poultry industry has developed into the largest agricultural industry of the country. The value of the industry is underestimated by the American people, and it has not been until recently that attention has been called to the vast wealth that lies at our very door. While the poultry industry is larger than any of the others, it is the only agricultural product that we do not

export. Our entire yield, which is vastly insufficient to meet the demand, is all consumed at home, and besides, statistics show we import from foreign countries over 13,000,000 dozen eggs annually.

AMONG THE POULTRY.

A "stunted" fowl better be killed at once. They are useless.

Drain the poultry yard; this applies to the barnyard also.

Feed but one kind of grain at a time, and cover up with light litter.

If living near a market, try turkeys. Ducks are also profitable.

Both nesting and dusting material should be renewed at least monthly.

Keep fresh water continually before the fowls, warmed a trifle on the colder mornings.

Select the best layers for breeding stock, keeping size and color of plumage as uniform as possible.

Keep grit of some kind accessible to the poultry at all times. This is indispensable to their well-being.

Corn is probably the best cold-weather food. Feed the kitchen scraps in the morning in a clean place.

Fatten the fowls just as quickly as possible. When the fattening process is begun, stuff them.

Are those broken window lights replaced by whole ones to keep out the wet and cold that will soon be here?

When the wings are cut, the feathers do not renew until the bird molts, but where the feathers are pulled new feathers will appear in a short time.

Secure a quantity of leaves for the hens to scratch in this winter. Place them in the hen house and scatter the grain therein. The fowls will get needed exercise in hunting for it.

Examine the poultry buildings thoroughly. See if the roofs will last during the winter; look at the walls and close the cracks. Clean up, whitewash, and give the place a general overhauling.

It is well to make an occasional change in the ingredients of mixed foods. Oats which have been boiled for two or three hours are excellent for an occasional breakfast for the fowls in winter, or for an evening meal in summer. Buckwheat boiled is a great egg-making food.

Don't think it luck that brings success, it's proper feed and management that determines the profit with poultry, etc.

Don't think you can breed prize winning stock from culls; it takes good stock, a great deal of experience and a little patience.

Don't think you know it all, because you will get left; ask your brother fancier for an occasional bit of advice, especially if you are a beginner.

Don't crowd your stock, you can't keep 50 birds in a place large enough for 20, and have success in breeding them, you might breed plenty of vermin, but that don't pay.

Don't throw a few handfuls of wheat at your pigeons once in awhile and wonder why they don't do well, feed them properly at least twice a day, always have pure clean water before them.

Don't think bantams are too small to be of any account, give them proper care and they will lay more eggs in proportion to their size than a good many of the large breeds.

\$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 a 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 one hundred dollars 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.

Remember that \$1.85 sent to this office will pay for one year's subscription to the "old reliable" KANSAS FARMER and the *Cosmopolitan Magazine*, one of the brightest, best and most artistic magazines published.

THE IMPROVED VICTOR Incubator
Hatches Chickens by Steam. Absolutely self-regulating. The simplest, most reliable, and cheapest first-class Hatcher in the market. Circulars FREE. Sent for 6 cents.
GEO. ERTEL CO., QUINCY, ILL.

LIFE PRODUCERS
THE SUCCESSFUL INCUBATORS.
LIFE PRESERVERS
THE SUCCESSFUL BROODERS.
All about them in our catalogue. Sent for 6 cents.
DES MOINES INCUBATOR CO., Box 83, DES MOINES, IA.

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. STANLEY, 114 to 122 S. 6th St. Quincy, Ill. Catalogue.

DEAD • EASY!

The Great Disinfectant Insecticide **KILLS HEN LICE**

By simply painting roosts and drooping-boards. Kills Mites and Lice, cures Colds and Cholera, also kills Hog Cholera germs. If your grocer or druggist does not keep it, have them send for it.

THOS. W. SOUTHARD, Gen. Agent, 528 Delaware St., Kansas City, Mo.

SMOKE YOUR MEAT WITH KRAUSERS LIQUID EXTRACT OF SMOKE
SEND FOR CIRCULAR. E. KRAUSER & BRO. MILTON, PA.

GIVEN AWAY!

An Iowa Feed Steamer, if it does not save its cost on one lot of hogs. Omaha Hay Press Co., Omaha, Neb.



Dr. J. H. McLEAN'S LIVER AND KIDNEY BALM
CURES

- Dropsy
- Bright's Disease
- Diabetes
- Female Diseases
- Bladder Troubles
- Urinary Disorders
- Calculus or Gravel
- Boils and Carbuncles
- Gall Stones
- Rheumatism
- Torpid Liver
- Irregular Menses
- Jaundice
- Backache

All who have used it say it is "The Peerless Remedy" for diseases of the Liver, Kidneys and Urinary Organs

Price \$1.00. At All Drug Stores

THE DR. J. H. McLEAN MEDICINE CO. ST. LOUIS, MO.

4 FARMERS POULTRYMEN AND OTHERS

ENTERPRISE BONE SHELL AND CORN

MILL

Will grind everything—almost. Capacity, 1 1/2 bushels corn per hour. Best general Mill you can buy. Soon pays for itself. Send for Catalogue that tells about it and scores of other things that you want and need—free. Ask your dealer.

No. 750, \$7.50
The Enterprise M'g Co. of Pa., Phila., Pa.

BIG SPECIAL OFFER

TO FARMER SUBSCRIBERS

The Kansas Farmer For 1897—Price Alone, \$1.00.

The Peterson Magazine For 1897—Price Alone, \$1.00

Both for the Year \$1.60!

To separate addresses if desired.

THE FAMILY MONEY MAKER!

Worth \$100 a year and more to all who own land, a garden, orchard or conservatory; covers, in plain language, by practical men, the care and cultivation of flowers, fruits, plants, trees, shrubs, bulbs, etc., and tells how to make home grounds attractive.

3 AMERICAN GARDENING 10
America's brightest and most reliable gardening and family paper. Established fifty years. Illus. Weekly. \$1.00 a year, WITH HANDSOME PREMIUM.

To introduce it to new readers we will send AMERICAN GARDENING 3 months (12 numbers) to any address on receipt of 10 cents, in stamps or coin. Sample free.

AMERICAN GARDENING, P. O. Box 1697, N. Y.

Or send \$1.15 to this office and it will pay for KANSAS FARMER and American Gardening, both for one year. Address KANSAS FARMER CO., Topeka, Kansas.

To Cripple Creek

VIA COLORADO SPRINGS

The Chicago, Rock Island & Pacific Railway is

4 hours quicker To Cripple Creek than any other line.

Full particulars by addressing JOHN SEBASTIAN, G. P. A., Chicago.

CRIPPLE CREEK

The Santa Fe Route is the most direct and only through broad-gauge line from Chicago and Kansas City to the celebrated Cripple Creek gold mining district. Luxurious Pullmans, free chair cars, fastest time, and low rates.

GOLD! GOLD!!

Address G. T. Nicholson, G. P. A., A., T. & S. F. Ry., Monadnock Bldg., Chicago, or W. J. Black, A. G. P. A., Topeka, Kas., and ask for free copy of profusely illustrated book descriptive of Cripple Creek. It is well worth reading.

SANTA FE ROUTE

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

BEFORE BUYING A NEW HARNESS
 Send your address with 2c stamp for Illinois Catalog, giving full description of Single and Double Custom Hand-Made Oak Leather Harness. Sold direct to consumer, at wholesale prices. King Harness Co., No. 57 Church St., 4wego, N. Y.

"JONES HE PAYS THE FREIGHT."
Farm and Wagon SCALES.

United States Standard. All Sizes and All Kinds. Not made by a trust or controlled by a combination. For Free Book and Price List, address
JONES OF BINGHAMTON,
 Binghamton, N. Y., U. S. A.

THE KEYSTONE DEHORNER
 For a knife that will cut a horn without crushing, because it cuts from four sides at once get
 It is humane, rapid and durable. Fully warranted. HIGHEST AWARD AT WORLD'S FAIR. Descriptive circulars FREE. A. C. BROSIUS, Cochranville, Pa.

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

ADAM'S PORTABLE CORN CRIBS.
 Two styles. Four sizes each. Adam's No. 1 Orib. The best made. Adam's No. 2 Orib for One Cent per bushel. Ask your dealer for them or write **W. J. ADAM,** JOLIET, ILLS. Cheap and Convenient.

LIGHTNING WELL MACH'Y
 PUMPS, AIR LIFTS, GASOLINE ENGINES. CIRCULARS FREE. THE AMERICAN WELL WORKS. AURORA, ILL. - CHICAGO - DALLAS, TEX.

Portable Well Drilling MACHINERY
 Established 1867. Covered by patents. Machines drill any depth both by steam and horse power. We challenge competition. Send for free illustrated catalogue. Address, **KELLY & TANEYHILL,** WATERLOO, IOWA. Mention KANSAS FARMER.

RUSSELL'S STAPLE PULLER AND WIRE SPLICER
 A combination tool used in repairing and removing wire fences. Price \$1.25. Drives and pulls staples, cuts and splices wire. Its special use is in building and repairing wire fences, but may be used for many different purposes about a farm. Saves its cost in one day's work. You can't afford to be without it. Ask your hardware merchant for it, or address **Russell Hardware & Implement Manuf'g Co.,** Kansas City, Mo.

The Baldridge Transplanter.
 Made of steel and iron. Earlier and larger crops.
 Soil, roots and plants taken up together, preventing cutting or injury. Vegetables, flowers, strawberries, tobacco, small nursery trees, etc., can be moved at all seasons. Invaluable for filling vacancies. Transplanter with blade 2 inches in diameter, \$1.25; same with 3-inch blade, \$1.50. **SPECIAL PRICE** with KANSAS FARMER: By a special arrangement with the manufacturers we are able to offer the Transplanter and KANSAS FARMER one year for price of Transplanter alone. Send \$1.25 and we will mail KANSAS FARMER to you and send you the Transplanter by express. Or call at FARMER office and get the Transplanter and save 25c. express charges. Address **KANSAS FARMER CO., Topeka, Kas.**

IT'S RELIABLE
 The Best and Cheapest Mill on Earth. Fully warranted. Will not choke. Write at once for prices and Agency. Prices lowest. Quality best.
PEERLESS FEED GRINDERS
 It grinds more grain to any degree of fineness than any other mill. Corn, ear or shelled, Oats, Wheat, &c., fine enough for any purpose. Made only by **Stevens Manuf'g Co** JOLIET, ILL. Jobbers and Manufacturers of Wagons, Farm Machinery, Windmills.
 When you write mention Kansas Farmer.

WE MAKE WHEELS, TOO!

We make them easy-running, durable, satisfactory, and the finish is far beyond any other you have ever seen.

Our Catalogue gives you a full description. If you want one we will send it, if you will drop us a line.

National Sewing Machine Co., Belvidere, Ill.

Free to Every Subscriber.....

That grand semi-monthly, 20-page ladies' journal, **LADIES HOME COMPANION**, whose subscribers now number nearly 200,000; and this number is increasing rapidly. If you have seen some of the recent issues of this beautiful journal, and noted the many and decided improvements that have been made, you will not be at all surprised at this rapid growth.

WOMAN IS QUEEN,
 and Home is Her Realm.



We have at last succeeded in completing arrangements whereby we are enabled to present our readers with this charming periodical free of all cost.

Who Has Not Heard of the
....Ladies Home Companion?

Hundreds of thousands are familiar with this magnificent publication, and its beautiful colored covers, containing a new and attractive design for each issue. Issued twice a month; its twenty or more pages are filled with illustrations, stories, sketches, poems and practical suggestions of the most absorbing interest to every member of the household.

The various departments, each under the direct supervision of writers especially adapted to them, are as follows:

- Housekeeping** This department is full of valuable suggestions on domestic economy and preparation of the daily meals.
- Fancy Work** The numerous illustrations and practical instructions of this department will delight all lovers of this dainty art.
- Decorations, Etc.** This department is invaluable to those wishing to furnish apartments according to modern tasty ideas.

- Fashions** Under this head are the prevailing fads and fancies which count for so much in my lady's toilet.
- Flowers** Lovers of flowers will find this department, ably edited by Geo. W. Park, B.Sc., of absorbing interest.
- Literary** The delightful stories, interesting articles and charming poems afford ample evidence of the care bestowed on this department. Many of the most popular writers in the country are regular contributors.

In addition to the above there is "Children's Corner," "Mothers' Chat," "Knotty Points," "Knick-Knacks," and "Miscellaneous."

OUR OFFER! In order to secure this Magazine free, send us two subscriptions for KANSAS FARMER and \$2, and we will order Ladies' Home Companion sent to your address one year, free to you. Or, send us your own subscription and \$1.30, and it will pay for KANSAS FARMER and Ladies' Home Companion one year. Add 10c. if "Modern Cook Book" is desired.
 Address **KANSAS FARMER CO., Topeka, Kas.**

Please mention "Kansas Farmer" when writing to our advertisers!

TO THE EAST
CHICAGO,
ROCK ISLAND & PACIFIC
RAILWAY.

The Rock Island is foremost in adopting any plan calculated to improve speed and give that luxury, safety and comfort that the popular patronage demands.

Its equipment is thoroughly complete with Vestibuled Trains,

BEST DINING CAR SERVICE
IN THE WORLD,

Pullman Sleepers, Chair Cars, all the most elegant and of recently improved patterns' Its specialties are

FAST TIME,
COURTEOUS EMPLOYEES,
FIRST-CLASS EQUIPMENT and
FIRST-CLASS SERVICE GIVEN.

For full particulars as to Tickets, Maps, Rates, apply to any Coupon Ticket Agent in the United States, Canada or Mexico or address

JOHN SEBASTIAN, G. P. A.,
CHICAGO, ILL.



SOLID THROUGH VESTIBULED TRAINS
Kansas City, St. Joseph,
Leavenworth, Atchison,
 TO
ST. LOUIS, CHICAGO, OMAHA,
PEORIA, ST. PAUL & MINNEAPOLIS.
 WITH
Dining Cars, Sleepers
and Chair Cars (Seats Free).
CONNECTIONS MADE AT
St. Louis, Chicago & Peoria
 FOR
All Points East, South & Southeast

L. W. Wakeley, G. P. A., ST. LOUIS, MO.
Howard Elliott, Gen. Mgr., ST. JOSEPH, MO.
H. D. Dutton, T. P. A., ST. JOSEPH, MO.
H. C. Orr, A. C. P. A., KANSAS CITY, MO.

SPECIALTY! Private Diseases and Diseases of the Rectum. Correspondence solicited. **DR. WM. H. RIGHTER,** 503 Kansas Ave., Topeka, Kas.



Vitality IN Men Restored.

Falling Sexual Strength in old or young men can be quickly and permanently cured by me to a healthy vigorous state. Sufferers from.....

NERVOUS DEBILITY,
WEAKNESS, VARICOCELE,

AND ALL WASTING DISEASES should write to me for advice. I have been a close student for many years of the subject of weakness in men, the fact is, I was a sufferer myself. Too bashful to seek the aid of older men or reputable physicians I investigated the subject deeply and discovered a simple but most remarkably successful remedy that completely cured me. I want every young or old man to know about it. I take a personal interest in such cases and no one need hesitate to write me as all communications are held strictly confidential. I send the recipe of this remedy absolutely free of cost. Do not put it off but write me fully at once; you will always bless the day you did so. Address

THOMAS SLATER, Box 960,
 Shipper of Famous Kalamazoo Celery,
KALAMAZOO, MICH.

HENRY W. ROBY, M. D.,
SURGEON.
 Office: 730 Kansas Ave., TOPEKA, KAS.

Clovers, Timothy, Millet, GARDEN SEEDS, FLOWER SEEDS. Catalogue for 1897 Free.

SEEDS TRUMBULL SEED CO. 1426 St. Louis Ave., KANSAS CITY, MISSOURI.

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

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. Oush with the order. It will pay. Try it!

FOR SALE—One hundred and sixty acres. One of the finest farms in eastern Kansas. Nice lawn, good buildings, fruit all kinds, shade. Price \$4,500. J. M. Smith, Globe, Douglas Co., Kas.

TWENTY SHORT-HORN BULLS FOR SALE—Pure-bred, ready for service. For particulars address J. F. True, Newman, Kas.

OZARK FRUIT LAND FOR SALE—Two hundred and twenty acres of the best fruit land in the world, one and one-half miles from Koshkonong station, Oregon county, Missouri, for sale at \$5 per acre, cash. Address C. C. Georgeson, Manhattan, Kas.

SIX GALLOWAY BULLS FOR SALE—Pure-bred, three aged and three yearlings. Bred and owned by W. G. McCandless, Cottonwood Falls, Kas.

IMPROVED CHESTER WHITE SWINE FOR SALE—Closing out established herd, owing to change of business. Choice offerings, both sexes, all ages. A big inducement in prices. Address C. J. Huggins, Wamego, Kas.

WANTED—To purchase, twenty pure-bred Holstein-Friesian cows and heifers. Price must be low to secure sale. Address "H.," care KANSAS FARMER office, Topeka.

FOR SALE—One hundred and sixty acre farm, first and second bottom; fine grain and stock farm. Address Box 166, Paola, Kas.

FOR SALE—Red Polled bull calf, serviceable, very fine, \$50. Choice Indian Game cockerels, cheap, exchange for good pullets. Wilkie Blair, Beulah, Crawford Co., Kas.

FOR SALE—Five thousand one-year cherry trees Cadwallader Nurseries, El Paso, Texas.

FOR SALE—Eighty, 120 or 200 acres of well-improved land, well watered, three miles from Linwood. I will sell on reasonable terms. For particulars address Samuel Boaz, Linwood, Kas.

WANTED—Buyers for Large English Berkshire gilts, bred or ready to breed to son of imported boar. Bargains! O. P. Updegraff, North Topeka, Kas.

HIGH-CLASS POULTRY FOR SALE.—Three hundred fine birds. L. Brahmas, Buff and Partridge Cochins, B. Langshans, B. P. Rocks and S.C.B. Leghorns. Prices from \$1 up, according to score. Adam Rankin, Olathe, Kas.

FOR RENT.—Two farms of 960 acres each in Anderson county to rent for a term of five years to good, responsible parties. All good farm land. Price \$1,200 per year. National Brokerage Company, 503-504 New York Life Building, Kansas City, Mo.

EGGS FOR HATCHING.—See advertisement else where. Belmont Stock Farm.

SUNFLOWER HERD DUROC-JERSEY SWINE. Choice pure-bred pigs for sale, September farrow Address A. D. & H. L. Ferrin, Prescott, Kas.

FOR SHORT-HORN BULLS—Reds and roans, first-class, and Poland-China boars, address D. P. Norton, Council Grove, Kas.

MOESER ICE AND COLD STORAGE CO.—Topeka, have just completed their new cold storage building, on the latest modern plan, and now have the best facilities for storing all kinds of fruits, butter, eggs, etc. Railroad switch to storage building. Car-load lots unloaded free of charge. Write for prices.

FOR SALE—One hundred and sixty acre farm one and a half miles from Bushong station, Lyon county, Kansas. Good spring. Price \$3 per acre J. B. McAfee, Topeka, Kas.

FOR SALE AT SPECIAL PRICES—Hay outfits, carriers, forks, etc. Inquire at the store of F. W. Griggs & Co., 208 W. Sixth St., Topeka, Kas.

SHORT-HORN BULLS—Cruckshank-topped, for sale. Choice animals of splendid breeding. Address Peter Sim, Wakarusa, Shawnee Co., Kas.

FOR SALE—Farms in Morris, Osage, Lyon, Bourbon, Cherokee, Labette, Neosho, Anderson, Montgomery, Coffey, Woodson and many other counties for sale on eight years' time. No interest asked or added in. Write for new circulars with descriptions and prices. Hal W. Nelswanger & Co Topeka, Kas.

FOR SALE—One hundred high-grade Shropshire ewes, choice ones. Also some choice high-grade Jersey cows. E. W. Melville, Eudora, Kas.

SPECIAL WANT COLUMN--CONTINUED.

WANTED—Reliable solicitors, with or without experience. Address Kansas Mutual Life Insurance Co., Topeka, Kas.

SHORT-HORN BULLS AND HEIFERS—By Lavender King 4th 10882, for sale. Kellerman & Son, Mound City, Linn Co., Kas.

TO EXCHANGE—For choice new alfalfa seed, several choice Bronze tom turkeys, at \$3 each, or pedigreed Poland-China swine at low prices. J. H. Taylor, Rhinehart, Dickinson Co., Kas.

FOR SALE OR TRADE—A Spanish jack 7 years old, also one jack 3 years; both black. Thomas Brown, Palmer, Kas.

WANTED—Sale bills, horse bills, catalogues and other printing. A specialty at the Mast job printing rooms, 900 North Kansas Ave., North Topeka.

WE MAKE A GOOD FARMER'S SPRING WAGON, two lay backs and let-down end-gate, for \$55. Warranted. Kinley & Lannan, 424-426 Jackson street, Topeka.

WANTED—Buyers for Large English Berkshire gilts, bred or ready to breed to son of imported boar. Bargains! O. P. Updegraff, North Topeka, Kas.

FARM HELP WANTED—To sell merchandise on long credit. No security. Address Love & Co., Throop and Congress Sts., Chicago, Ill.

SHAWNEE COUNTY CIDER MILL.—Bring your apples to my cider mill, three miles west of Kansas Ave., on Sixth street road. My mill will be in operation every Tuesday, Thursday and Saturday till November. Henry McAfee Topeka.

THOS. B. SHILLINGLAW, Real Estate and Rental Agency, 115 East Fifth St., Topeka, Kas. Established in 1884. Calls and correspondence invited.

Wanted, an Idea. Who can think of some simple thing to patent? Protect your ideas; they may bring you wealth. Write John Wedderburn & Co. Patent Attorneys, Washington, D. C., for their \$1,800 prize offer and list of 200 inventions wanted.

DO YOU WANT TO MAKE MONEY? THEN BUY CRIPPLE CREEK STOCKS

Now! and take advantage of coming advance in prices. Bull Hill Gold Tunnel Stock we are recommending and have a limited amount of TREASURY stock, full paid and non-assessable, that we can sell at 3 cents a share. This Tunnel site runs under the famous Bull Hill and cuts many valuable veins. Eight hundred feet of work already done. Prospectus, map, etc., furnished if desired. Send orders to THE MECHEM INVESTMENT CO., Colorado Springs, Colo.

SEEDS ALFALFA SEED A SPECIALTY.

Cane and Millet Seeds, Kaffir and Jerusalem Corn, Success and Hulless Barley, Seed Oats and Spring Wheat. All crop of 1896. Write for our "How to Sow Alfalfa," and prices on seeds McBeth & Kinnison, Garden City, Kansas.

Hear Ye! Hear Ye! Hear Ye! THE OLD RELIABLE Kansas Seed House! OF F. BARTELDES & CO. Is now ready to mail their New Illustrated Catalogue to anybody who will apply for the same. Large Stock of Field, Grass, Garden, Flower and Tree Seeds, Garden Implements and everything belonging to the seed line always on hand. All orders promptly filled. Correspondence solicited. Address KANSAS SEED HOUSE, LAWRENCE, KAS.

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 2344, Black Joe 2863, 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.

ELM BEACH FARM POLAND-CHINA SWINE The home of the great breeding boar, SIR CHARLES CORWIN 33095. Our 1896 crop of pigs are by six different boars and out of fashionably bred sows, including such grand individuals as the prize-winning \$500 Lady Longfellow 34099 (S), that has eight pigs by the prize boar, King Hadley. STOCK FOR SALE at all times and at very reasonable prices. We also breed Short-horn cattle. Write or come and see us. IRWIN & DUNCAN, Wichita, Sedgwick Co., Kas.

The Kansas City Stock Yards

are the most complete and commodious in the West, and second largest in the world! The entire railroad system of the West and South-west centering at Kansas City has direct rail connection with these yards, with ample facilities for receiving and reshipping stock.

Table with columns: Cattle and calves, Hogs, Sheep, Horses and mules, Cars. Official Receipts for 1895: Slaughtered in Kansas City, Sold to feeders, Sold to shippers, Total Sold in Kansas City, 1895.

CHARGES: YARDAGE, Cattle, 25 cents per head; Hogs, 8 cents per head; Sheep, 5 cents per head. HAY, \$1 per 100 lbs.; BRAN, \$1 per 100 lbs.; CORN, \$1 per bushel. NO YARDAGE CHARGED UNLESS THE STOCK IS SOLD OR WEIGHED. C. F. MORSE, E. E. RICHARDSON, H. P. CHILD, EUGENE RUST, V. Pres. and Gen. Manager. Secretary and Treasurer. Assistant Gen. Manager. Gen. Superintendent. W. S. TOUGH & SON, Managers HORSE AND MULE DEPARTMENT.

FIRST ANNUAL COMBINATION PUBLIC SALE

Registered Swine--Poland-China, Berkshire, Chester White

UNDER THE AUSPICES OF THE KANSAS SWINE BREEDERS' ASSOCIATION. AT TOPEKA, KANSAS, ON WEDNESDAY, JANUARY 13, 1897.

The offerings will consist of about fifty head, two each from the leading herds in the State, both sexes and all ages and all TOPS. The collection will be representative of the leading families of each breed, and will give the visitor an idea of the type required by the up-to-date breeder and afford him the opportunity of the year to buy new blood with which to recruit and reinforce his herd. Sale to be under cover and will commence at 1 o'clock p. m. TERMS—Cash or acceptable ninety-day bankable paper. For catalogue address O. P. UPDEGRAFF, Sec'y Kansas Swine Breeders' Association, TOPEKA, KANSAS.

SUNNY SLOPE FARM EMPORIA, KANSAS, Hereford Cattle Headquarters Sunny Slope Farm is one of the largest breeding establishments in the United States. Three sweepstakes bulls in service—Wild Tom 51592, Climax 60942, Archibald VI. 60921, also the great breeding bull, Archibald V. 54433, who was the sire of two sweepstakes animals (Archibald VI., sweepstakes under one year of age, and Miss Wellington 5th, sweepstakes heifer over all beef breeds when twelve months and twenty days old. We have thirteen serviceable bulls for sale, ranging from eight to twenty months old. We also have forty bulls for sale, ranging from five to eight months old. Also a choice lot of heifers and cows. We combine the blood of Anxiety, Lord Wilton and Grove 3d. Breeders are invited to inspect our herd. C. S. CROSS, H. L. LEIBFRIED, Manager. EMPORIA, KANSAS.



WILD TOM 51592. Sweepstakes bull Wild Tom 51592. Weight when thirty-four months old 2,205 pounds in show condition. He is the best living son of Beau Real 11655. Dam Wild Mary 21238. Winnings:—Iowa State Fair, 1895, first in class, first in special, first in sweepstakes, and Silver Medal; Kansas State Fair, first in class, first and special at head of herd, first bull and four of his get. FARM—Two and a half miles northwest of city. We furnish transportation to and from the farm if notified.