VOL. XXXIX. NO. 4.

TOPEK, KANSAS, THURSDAY, JANUARY 24, 1901.

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Large-boned, Prize-winning POLAND-CHINAS. We have for sale 6 last fall boars, 5 extra good. Also 100 spring pigs. They are of the low-down, heavy-boned, lengthy, easy-keeping kind. The practical, money-making kind of hogs. We can furnish pairs or herds act akin, and of any of the popular and prize-winning strains. Prices reasonable. Nothing but the best shipped on order.

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33-- PURE BRED POLAND-CHINAS -- 33

For present sale, I have CHOICE SOWS. Bred to Logan Chief 2d 24427 and Proud Tecumsel 24656. Most of the sows are sired by the 900-pound Corwin I Know 18448 and Hadley U. S. 20186. Also 5 choice October pigs at \$8 and \$10 for the next 30 days My hogs have good heads and small, fancy ears Come and see them or write.

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Herd headed by the famous herd boar, BLACK CHIEF (42357), and assisted by IDEAL U. S. (Vol. XXII). I have on hand 80 serviceable boars and 85 gilts for sale at reasonable prices; quality, style, and breeding considered. Out of 20 richly-bred sows, such as Worldbeater's Beauty (109484), Dolly P. (106020), Black Bessie (104244), and Banner's Pride (103706).

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....Young bulls and helfers for sale....

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Norwood Shorthorns. V. R Ellis Gardner, Kas. Sir Charmin 4th at head of herd. Cruickshank top crosses on best American families. Young stock for

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GWENDOLINE'S PRINCE 130913 in service, a son of the \$1,100 cow, Gwendoline 5th. Best Scotch, Bates, and American families represented. Also breed high-class Durpc-Jersey swine. Oan ship son Santa Fe, Frisco, and Missouri Pacific R. R. J. F. STODDER, Burden, Cowley Co., Kans.



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On account of bad weather and ir adequate room, our sale January 9th was called off after a few lots We now offer a car load of toppy bulls at retail; will make very low price for the lot. J. F. TRUE & SON, Newman, Hansas.

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The get of Marmion 66646 and Anxiety Wilton A—45611, 10 to 24 months old. These bulls are large, and good individuals, and of the best of breeding. Inspection invited.

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The blood of Roan Gauntlet and Champion of England can be had direct through our herd bull, Godoy 116675. His dam, Imp. Golden Thistic (Vol 26) is by Roan Gauntlet; his granddam, Golden lady by Champion of England. Godoy is still active and a sure getter. A few years later you can not get this blood direct. Godoy transmits the old scale and substance produced only by Cruickshank. Thirty-five Cruickshank females in herd; also Booths and DoubleMarys. Can offer Godoy Calves from these tribes.

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SHIRE, AND PERCHERON HORSES SHORTHORN, AND POLLED DURHAM CATTLE, POLAND-CHINA SWINE.

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Two Registered Duroc-Jersey Gilts, bred to registered Duroc-Jersey boar not akin, \$15 each.

Two Registered Poland-China Gilts,

bred to registered Poland-China boar not akin, \$15 dach; Poland-China pigs, registered, \$10 each. Registered Poland-China and Du-roc-Jersey boars, 250 pounds, \$15

tered Shropshire Rams and in Lamb, \$20 each.

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.. AMERICAN.. Angora Goat Breeders

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Over 70 sizes and styles, for drilling either deep or hallow wells in any kind of soil or rock. Mounted n wheels or on sills. With engines or horse powers, trong, simple and durable. Any mechanic can perate them easily. Send for catalog.

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Corn Belt Feed Grinders

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HAPPY NEW YEAR TO ALL



Farmers!

8

If you have any Fencing to do, the best way to make yourselves happy is to Buy a SUPERIOR FENCE MACHINE and build your own fence. You can have the best fence for the least money, built on the ground to fit. Oatalogue Free. Price of Machine \$4.75 prepaid. Good agents wanted.

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Italian 🛭 Bees.

Full colonies shipped any time during summer and safe arrival guaranteed. It will pay you to try my stock of Italian bees in the Latest Improved Hives. Nothing will double in value quicker.

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"I had been in bed three weeks with grip when my husband brought me Dr. Miles' Nervine, Pain Pills and Nerve and Liver Pills. I was cured."—Mrs. J Renier, Franklin, Ind.

250 HIGH GRADE ANGORA DOES

All pure white, thin pendulent ears. : : : Will sell very cheap if taken soon.

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AT PUBLIC AUCTION!

ON MONDAY, FEBRUARY 25. 1901, There Will Be KANSAS CITY STOCK YARDS,

1,500 REGISTERED and HIGH CLASS ANGORA DOES, all bred to registered bucks, which will kid from April 15 to May 1. 600 of the above goats are registered in the American Angora Goat Breeders' Association. They are 2 and 3 years old. Owned and bred by D. C. Taylor, Lake Valley, New Mexico, the gentleman who bred and owned "Lazarus", the \$700 buck which sold at our sale and show last fall.

W. T. McINTIRE, Agent,

จึงกระทางกระทางกระทางกระทางกระทางกระทางกระทางกระทางกระทางกระทางกระทางกระทางกระทางกระทางกระทางกระทางกระทางกระทา

Live Stock Exchange, KANSAS CITY, MO.

OF MISSOURI'S BLACK CHIEF BREEDING,

THURSDAY, JANUARY 31, 1901

OAK GROVE, MO.

will se 20 Missouri's Black Chief Sows and Gilts bred to "R's Perfection" 24433 by "Chief Perfection 2d", and 20 fall yearlings and spring gilts by "A's Chief" 21014, (and other well bred boars) bred to "Chief Eclipsed" 22499, the best matured son of "Misopen gilts by "Missouri's Black Chief", souri's Black Chief"; alsoFOR FULL PARTIC, LARS SEND FOR FREE CATALOGUE

E. E. AXLINE. OAK GROVE, MO.

COL. J. W. SPARKS, Auctioneer, Marshall, Mo.

Bids may be sent to the Auctioneer or to H. A. Heath, Topeka, Kansas, by thosewho are unable to be present.....

THREE: DAYS': AUCTION: SALE.

AT THE KANSAS CITY STOCK YARDS NEW SALE PAVILION, FEBRUARY 6, 7, and 8, 1901

Wednesday, February 6, F. W. and O. B. CAIN, of

Novinger, Mo.,

WILL SELL 60 HEAD OF REGISTERED SHORTHORNS.

Straight Bates, Cruickshanks, and Cruickshank-topped.

Thursday, February

STEELE BROS., Belvoir, Kans., and E. A. EAGLE & SON, Rosemont, Kans.,

WILL SELL 60 HEAD OF RICHLY BRED REGISTERED

HEREFORDS. Thirty Bulls and Thirty Females. Friday, February

MILLER & BALCH, Kirksville, Mo., and E. CORKINS, Bethany, Mo.,

WILL SELL 60

HEREFORDS.

Eleven Bulls, and 49 Cows and Heifers.

FOR SHORTHORN CATALOGUE, ADDRESS

FOR HEREFORD CATALOGUE, ADDRESS STEELE BROS., - - Belvoir, Kansas.

W. CAIN, - - Novinger, Missouri. COLS. WOODS, SPARKS, and JONES, Auctioneers.

Agricultural Matters.

Characteristics and Needs of the Several Wheat Districts of the United States.

MARC A. CARLETON, U. S. DEPARTMENT OF AGRICULTURE.

(Continued from January 10.) IRRIGATED WHEAT DISTRICT.

In this region is included all those scattered portions of the Rocky Mountain and Basin States in which wheat is grown at all. The states thus included are Wyoming, a part of Montana, southern Idaho, Uath, Nevada, Arizona, New Mexico, and the greater part of Colo-rado. In this district we find conditions remarkably different from those existing anywhere east of the Rocky Mountains. Three striking characteristics not present to so great a degree in any other district are (1) the extreme aridity, necessitating the application of water by irrigation, (2) the very low humus content of the soil, and (3) the superabundance of alkali usually present. These conditions are closely inter-related and mutually dependent up-on one another. The absence of humus is a natural result of the absence of rainfall, upon which depends the existence of plant life. Rainfall also tends to equalize the distribution of the alkaline matters of the soil, which in this district, however, are concentrated, in places, in high percentages.

The practice of irrigation is often allowed to make conditions worse by gradually carrying and depositing in certain localities or on certain farms an excess of aikali largely above that which was already present. These features of extreme aridity, lack of humus, and excess of alkali are so particularly characteristic that they go far beyond any matters of temperature dependent upon latitude or elevation in their effects upon the nature of wheat varieties grown in this district. That is, wheats so far north as southern Idaho are very like those of southern New Mexico or Arizona, and in all parts of the district show uniformly a great lack of gluten content, which is de-pendent mainly upon the presence of soil humus.

Wheat does best in soil that is alkaline rather than acid in reaction, but an excess of alkali becomes very injurious. Different cereals are able to withstand different amounts proportionally of alkali in the soil. Barley and rye seem to tolerate a larger proportion than wheat, and the latter will usually tolerate a larger amount than oats. Of all the cereals barley will withstand the largest amount.

The wheats of this district are almost always white-grained, soft, and extremely starchy, and lack greatly in gluten content. The straw is so white and clean and glistening that it is dazzling to the eyes in the hot sunshine. Rust on wheat is seldom injurious, and in some localities is entirely unknown. Smut, however is often present to a considerable extent. The stiffness of the straw and the absence of rain prevent the grain from ever lodging, so that harvesting may be delayed for weeks with little or no injury to the

Manifestly the greatest need of this district is an increase in the gluten contents of the grain. While the introduction of hard-grained nitrogenous sorts from other sections is at first an improvement, the gluten content can not thus be materially and permanently increased. No wheat variety, whatever its nature, can abstract from the soil elements that are not present there. Wheats brought from the black prairie soils of other sections to this district show striking illustration of the radical changes that may be caused in a variety by a simple transference to a new locality and, even when grown under the best of care, quite effectully disprove a notion prevalent even among scientists that varieties will not de-teriorate. The hardest red Fifes from North Dakota, Turkey wheat from Vansas, or Diamond Grit from New Irk, become rapidly more starchy and

a lighter color on being grown in U. sh or New Mexico. The first requisite, therefore, for wheat improvement in irrigated sections is the complete amelioration of the soil by (1) dispersing the excessive accumulations of alkali and (2) increasing the humus content through the application of nitrogenous fertilizers and the growth of leguminous crops in alternation with wheat. At the same time it will aid greatly to gradually introduce the harder red-grained wheats.

In many portions of this district, at high elevations in the mountains, wheat is often seriously damaged by early been reclaimed, and now after many regards the comparative distribution of

It is therefore imautumn frosts. portant to obtain for these localities the earliest maturing varieties possible, or varieties that may perhaps resist For example, the action of frosts. For example, the San Luis Valley of Colorado wheat is grown at an elevation of over 7,500 feet, where frost is likely to occur in any month of the year, but is especially liable to injure the crop in August.

SUMMARY OF CONCITIONS AND NEEDS OF THE DISTRICT.

Chief varieties now Sonora, Taos, Felspar, Little Club, Defiance, Amethyst.

Average yield per acre, about 21 bushels.
(3) Needs of the grower:

Increase of the gluten content. Early maturity.

WHITE WHEAT DISTRICT.

This district covers, in a general way the Pacific Coast region, including California, Oregon, Washington, and northern Idaho. All varieties that have be-come at all acclimated are characterstically white-grained, soft, and starchy. Usually the factor which is probably most influential in producing grain of such nature is the lack of humus in the soil, as is true in the irrigated district. The generally cool summers, however, no doubt give aid to the same end. Hard, red-grained varieties, when brought to this district, deteriorate in a few years' time. Nevertheless such introductions have in a number of instances proved beneficial.

A majority of the more common varieties strictly characteristic of the district are of the group usually called club wheats and belong to the species Triticum compactum. Sonora, Defiance and Australian of California, Red Chaff of Oregon (distinct from the Palouse Red Chaff of the Palouse country), and Palouse Blue Stem of Washington are not, however, club wheats. As the botanical name of the club group implies, these wheats have their spikelets (meshes) so compactly arranged in the heads that they stand out nearly at right angles with the rachis (or stem of the head). The head thus becomes squarely formed (hence the name square head applied to many of the varieties), and, being usually a little larger at the apex than at the base, appears club shaped. Thus, although the heads are usually rather short, each contains comparatively a large each contains comparatively a large number of grains, which partially ac-counts, probably, for the large yields per acre in this district. Heads of Chili Club are occasionally found that contain over 160 grains each. A very valuable characteristic of the

club wheats is their ability to hold the grain in the chaff so that there is little danger of shattering, even during the driest season, if there should be much delay in the harvest. In some localities the grain, though ripening in July, is sometimes left standing until September before harvesting, a habit which, however, has no good excuse for its

For the purpose of clearer discussion, the district may be considered as subdivided into three sections-California, Oregon, and the Palouse country of

Washington and northern Idaho. In southern California the varieties Sonora and Defiance are much grown, the latter particularly for its rust resistance, which is an important need in this part of the state. Sonora wheat has a reddish velvet chaff, is beardless, and is white-grained as seen in this district. The grain is a little harder than that of the club wheats and is used for export, while the grain of the latter is

used for home consumption. From the latitude of Fresno to the Oregon state line Australian and the various strains of club wheats are principally cultivated. The best known varieties that are given special names at all are Golden Gate Club, Salt Lake Club, and Chili Club. The variety Propo is also grown to some extent. Other sorts from the East, such as Rudy, are occasionally introduced, but these do not seem to yield so well, and besides shatter so badly that they soon have to be given up. Non-shattering varieties are in great demand. In all portions of the state the increase of greatest need. All varieties grown in the state are winter wheats.

One of the most interesting sections of California devoted to wheat culture is that of the "Tule" lands, near Stockton. The great grain fields there show strikingly the possibilities in a reclamation of immense marshes. They were once vast flats covered with water, mud, and a growth of bulrushes (Scir-pus lacustris), called Tule in Spanish. By means of pumping, dredging, and

years they are among the most fertile of the state. Wheat yields from 50 to 80 bushels per acre here, and barley sometimes as much as a hundred bush els or more per acre. This remarkable fertility is a result, in part at least, of the deep deposits of organic matter. There is still apparently a lack of certain mineral ingredients, such as lime and potash, which are needed to make the quality of the grain as good as the

quantity.
As in the case of the hard spring wheat district the chief difficulty in the way of successful wheat culture in Cal-ifornia, so far as agricultural practice is concerned, is the enormous size of many of the farms or ranches. They are even larger than in the Dakotas and Minnesota, containing often from 20,000 to 30,000 acres. On this account it is impossible to give the attention to details in farming that are necessary for the best results. The lack of at tention to nitrogenous manuring, and especially to the alternation of wheat with leguminous crops, is particularly noticeable.

The combined harvester-thresher is used in harvesting pretty generally throughout the state. This machine is either drawn with an engine or with 28 to 40 horses. By its use the grain is threshed directly from the field and left piled in bags. Immense ricks of these bags of grain remain in the field sometimes for weeks unmolested and undamaged by the weather. All grain throughout the state is handled in this form and calculations are made in bags and not in bushels. There is therefore no use for the grain elevator, in the ordinary sense of the term. Each bag contains 21/2 bushels or about 150 pounds.

West of the Cascades, in Oregon, conditions are somewhat similar to those in California. In a large portion of the state a considerable amount of spring wheat is grown. In addition to the ordinary club wheats some other varieties, such as Oregon Red Chaff and Folse, are also well represented. The midsummer climate is much cooler than in California and therefore has than in California and therefore harvesting is performed much later. On account of the greater dampness of the atmosphere and the smaller size of the farms combined harvester-threshers are not used, but self-binders instead. There is great need of early maturing varieties, as the cool autumn weather hegins so early. The nitrogen content of the grain is exceedingly small.

In eastern Oregon climatic and other conditions are quite different from those west of the Cascades, and a description of that section is more properly included in the discussion of the

Païouse country.

In western Washington the general conditions and the quality of the wheat are very similar to those of western Oregon, but in southeastern Washing. ton and adjacent portions of Idaho and Oregon is a large section known as the Palouse country, which possesses peculiarities of soil and climate that are distinctively characteristic and radically different from those of the Pacific Coast region proper. Strictly speaking, the Palouse country is considered to be rather limited in extent, comprising approximately Latah County, Idaho, and Whitman County, and very small ad-joining portions of Adams and Franklin counties, in Washington. Recently, however, the term has come to be applied practically to early all of these last-named counties, as well as to Garfield, Columbia, and Walla Walla counties, and may even include the northern portion of Umatilla County, Oregon. The two features which most distinguish this region from the Pacific Coast proper are the dryness of the climate and very finely divided condition of the soil. The particles are so very when dr fine that tically mere dust. On windy days this dust fills the air, forming vast clouds that are very disagreeable to the traveler. At the same time, with very little rain the soil becomes quite sticky and difficult to manage. The capacity of the soil to absorb and retain moisture is remarkable. It is pretty generally believed that a rainfall of 12 inches in this district is sufficient to make a crop the gluten content is probably the greatest need. All varieties grown in plains 18 inches is considered to be rather low for successful wheat growing. Wheat is the chief crop of the region, though barley and oats are grown to some extent. The principal wheat varieties (except Palouse Blue Stem) are of the club-wheat group. They are usually soft-grained and starchy, and generally white, similar to those of the coast region, but a little better in quality. The three standard varieties commonly grown are Palouse Blue Stem,

these varieties if the region be considered as divided into three parallel north and south belts, it will be found that Palouse Blue Stem prevails in the western belt, extending as far west-ward as North Yakima; Palouse Red Chaff in the middle belt, passing through the heart of the region, and Little Club in the eastern belt, reaching the foothills of the mountains.

The most serious obstacle to successful wheat culture in the Palouse country is the annually recurring drought which occurs about two weeks before harvest time, particularly in the western and southern portions. From this cause the wheat is often badly shriveled, and both the yield and thereby much affected. A slight com-pensation for this loss lies in the fact that shriveled wheat in this district is more in demand for making macaroni plump wheat, because of the greater proportional amount of gluten in the former. In order to escape the severe effects of the drought, early maturing sorts are exceedingly desirable. It would probably be no exaggeration to say that a veriety ripening ten to fifteen days earlier than the varieties now used, and as good in other respects, would add from one to three million dollars a year to the wealth of this region. In the central and southern portions of the region fall sowing is chiefly practiced, but in the northern and eastern portions, near the mountains, there is a larger proportion of spring varieties, and there a good, hardy winter sort is needed. In the drier western and southern portions, especially in the vicinity of Walla Walla, non-shattering varieties are necessary. There the combined harvesterthresher is used in harvesting, as in California. In the north and east, and in the more hilly portions, as in the vicinity of Colfax, the self-binder is more commonly employed. In a few places a comparatively new sort of machine has recently come into use. It makes a 10 or 12 foot cut, and is driven in front of the horses, as in the case of a header, but unlike the latter possesses a self-binding attachment as

SUMMARY OF CONDITIONS AND NEEDS OF THE DISTRICT.

Principal varieties at prenget, o Australian, Calcornsed Jub, Sonora, Oregon Red Chaff, Palouse Blue Stem, Palouse Red Chaff, Little Club, White Wirter, Foise.

(2) Average yield per acre, about % bushels.

Needs of the grower:

Early maturity.

(b) Non-shattering varieties. (c) Hardy winter varieties in the colder portions.

Johnson Grass.

PROF. A. S. HITCHCOCK.

This grass is a native of the Mediterranean region. It was introduced into the Southern States about 1830, and for some time was known by the name of Mean's grass, which name it still retains in some localities. About ten years later it was introduced into Alabama from South Carolina by William Johnson, and has since been quite generally known as Johnson grass. botanical name is Andropogon Halapensis, or Sorghum Halapense. It is sometimes called Guinea grass, but this name properly belongs to Panicum maximum, a tropical forage grass sometimes cultivated in southern Flor-

Johnson grass has received considerable attention in Kansas lately. It has been grown in the plats of the Kansas Experiment Station for several seasons, and its behavior in our climate tested. It is a rank growing perennial, with numerous strong rather fleshy creeping rootstocks, by which it propagates. The stems and leaves are coarse but quite succulent. It seeds abundantly and seed can be purchased at all seed houses. If the seed is clean, about one bushel per acre is sufficient for sowing. Johnson grass is chiefly used for hay, for which purpose it should be cut early before the stems become too old and hard. Usually two or three cuttings can be made. The seed should not be sown until the ground is warm or it will not germinate well. Johnson grass prefers rich moist soil, though it will grow in quite a variety of soils. It is injured by severe winters, but the cold winter of 1898-99 did not entirely kill out the experimental plot, and it quickly recovered from the effects of the cold. It is not a success

TO CURE A COLD IN ONE DAY Take Laxative Bromo Quinine Tablets. All drug-gists refund the money if it falls to cure. B. W. Grove's signature is on each box. 25 cents.

as a pasture grass, as it is injured by grazing to such an extent that a pas-ture soon becomes useless, yet the vitality of the rootstocks is such that it is never entirely killed out in this way, and after a rest soon recovers from the effects.

Throughout the South, under proper conditions it is considered an excellent hay grass, and in all parts of Kansas where there is sufficient moisture it will undoubtedly be valuable for the

same purpose. However, it is exceedingly difficult to eradicate the grass on land where it has obtained a foothold, and for this reason it may become a pestiferous weed. Hogs are rather fond of the rootstocks and when confined upon a plot of the grass will destroy it. But on soil adapted to its growth it reon soil adapted to its growth it requires great care to eradicate it. If one wishes to grow Johnson grass the best plan is to devote a field to the purpose without expecting to subsequently put the field in cultivation. With care it can be confined to this field. After a few years the ground be-comes so full of rootstocks that the development is hindered. To rejuve-nate a field, it should be plowed and harrowed in the spring, or else thoroughly disked.

All these points should be carefully considered before the grass is given a trial. As a forage grass it may prove of great value, and the fact that it is difficult to eradicate may be in its favor in those parts of Kansas where it is not easy to grow forage plants suc-cessfully. But if tried, great care should be taken to keep it under con-

Kansas Experiment Station.

81 n a \$1

BE BE CHEST

Numbering Roads and Farms.

EDITOR KANSAS FARMER:-I have reread your plan for numbering roads and farms. It seems to me it is worthy of being promptly carried into effect. Anything that has no drawbacks, and this proposition has none, that adds to the convenience of our people and the attractiveness of the state is worth while. Its convenience to travelers. is of no small importance. A stranger within the state, finding so efficient a device at every section corner for activately locating himself, could not heir Teling that he was among hospitable people whose acquaintance he could afford to cultivate. A farm so numbered as to be definitely located on the map of the state would indicate that the owner regarded it not as a period (.) at which he must stop after passing beyond its confines, but a place in which he feels an honest pride. This in turn would naturally stimulate a desire to make it as attractive as circumstances would permit. The reader of a paper sees a pig, calf, horse or something else advertised in which he is interested, and can determine at once by the numbers whether it is within a range of feasible shipping, and so solve one problem in a possible deal. From any point of view the plan is a good one and only needs to be under-stood to be indorsed. J. M. Foy. stood to be indorsed. Brainerd, Kans.

Turkestan Alfalfa.

For the last two or three years, we have occasionally seen in the agricultural press, articles lauding the merits of the variety of alfalfa bruoght from the far East by Prof. Hansen. We believe we have tested this alfalfa as carefully as any farmer can under the same circumstances, with the limited amount of seed furnished me by Secretary Wilson. On receipt of the seed, I sowed it adjoining another piece of common alfalfa and thought I had a seco cut when in bloom, same as the common variety, thinking to get some seed to send to Secretary Wilson, as he requested, that he might test seed of American growth. But not a bloom or seed did I see that fall, and only a dry the second growth. I blamed a dry 6-inch second growth. I blamed a dry spell for the short growth and the failure to seed, notwithstanding the fact that the adjoining plat of common alfalfa made the third crop but a little short. In the second year from sowing I was very careful to cut it during a wet spell. This time we got a little better second growth, but not half as high as the common variety, and no seed.

I want to say right here that I do not believe this imported variety will ever produce seed on the second crop. During the season of 1900 I determined to

A Month's Test Free. If you have Dyspepsia, write Dr. Shoop, Racine, Wis. Box 27, for six bottles of Dr. Shoop's Restorative Express paid. Send no money. Pay \$5.50 if cured.

let the first crop seed, and did succeed in getting a few seed.

Mr. Ballard, the gentleman who su-perintends the Washington County ex-hibit at the Nebraska state fair, has been trying to get a sample of this alfalfa to put in his collection of grasses; but we always fail to get a sufficient growth from the second cutting. This year (1900) we furnished

him a sample from the first growth.

We always had our doubts about anyone being able to distinguish between these two varieties of alfalfa. But Mr. Ballard informs me that Prof. Bessey easily recognized this as a new variety. I never could tell any difference except in growth. Why anyone will recommend this alfalfa is a mystery to me. Prof. Hansen still claims it is superiour to the common variety.
—S. W. Stewart, Washington County Nebraska, in Nebraska Farmer.

Important Facts About Kansas Wheat Crop.

EDITOR KANSAS FARMER:-From the Kansas State Board of Agriculture's last crop bulleting of the year, as published in the KANSAS FARMER of December 13, we discover the following There are 12 counties in the state that produce over 2,000,000 bushels of wheat each. Numbered according to the quantity produced, they are as follows:

are	o ab Lomo wo.			
	Name.			Bushels
1.	Sumner			5,759,860
0	Rarton			. 0,078,400
3.	Rice		• • • • • • • • •	9,120,000
4.	McPherson Sedgwick			2,800,000
5.	Russell		••••	2,568,11
7	Rnah			2,474,92
8	Salina			2,467,56
Q	Ellis			. 2,000,14
10.	Ellsworth			2,810,120
11.	Stafford Reno			2,095,77
12.	кепо			. 2,000,11
	Motel .	THE PERSON NAMED IN		35.946.67

It will be seen from these figures that nearly half of the entire wheat crop of the state has been grown in these twelve counties, and they are all located between the 20th and 23rd degree of longitude from Washington, and the 37th and 39th of longitude, excepting a small portion of Russell and Ellis counties. Seven of these counties lie mostly on the east side of the geographical line running north and south through the center of the state and the balance on the west of that line. From the north line of the state, they begin in the third tier of counties. Sumner, which is probably the banner county in the United States, if not of the world, is in the southern tier of counties, while Barran, that raised the second largest crop, is very near the geographical center of the state.

Notice again, there are fourteen counties that raised between one and two million bushels, numbered as fol-

lows.	
Name.	Number of Bushels.
9 Mitchell	
4. Marion	1,807,160
6. Dickinson	1,693.460
9. Harvey	1,567,340 1,487,05 1,482,35
11. Cowley	1,439,00
13. Pratt	
Total	22,330,51

Every one of these counties lies contiguous to some of those which produced over two million bushels. The total product of wheat in the twenty-six counties thus mentioned is 58,277,-189 bushels. In addition to this, there are thirteen other counties that have produced over 500,000 bushels each, which are numbered as follows:

WHICH are numbered t	
Name.	Number of Bushels.
1. Montgomery	999,576
9 Rrown	844,070
3 Marshall	
4 Smith	122,428
5. Ness	719,041
6 Edwards	696,400
7 Labette	678,210
8. Olay	638,607
9 Doninhan	
10, Washington	602,928
11. Trego	
12 Thomas	000,000
13. Jewell	552,087
***	0.020.024

Total..... Of these counties, seven lie east of the center line of the state and six There are 68 counties in the west. state that raise less than 500,000, less than 100,000, 14 less than 20,000, 3 less than 100, and 2 that do not report any wheat, Grant and Stanton. Stevens only reports 80 bushels. These three counties lie in the southwest cor-

ner of the state. Some of your correspondents, I see, do not seem disposed to look favorably upon wheat raising as a profitable business. From the bulletin of the Kansas fruit, his fuel, and his fowls. He Board of Agriculture referred to, it will should be in such condition that he



be seen that the wheat crop of the state in 1900 was valued at \$41,624,096, nearly half of which was raised in twelve counties and this at the present low price of wheat.

own a farm in Sedgwick County on which I have three farmers, one of which raises 27 bushels to the acre, another raises 25, the third 15 bushels to the acre; the latter occupied the best land of the three, the difference being in cultivation. being in cultivation. I sold my wheat for 58 cents a bushel. That would make the crop of the first farm worth \$15.66 an acre; that of the second, \$14.50; that of the third, \$8.70 an acre. l got one-third of the crop, which, for the first, was \$5.22 an acre; for the second, \$4.83 an acre; for the third, \$2.90 an acre. The farm produced over 3,000 bushels of wheat in 1900. There is on this farm about 200 acres of pasture and meadow from which the rent is not 50 cents an acre. Imagine how these facts suit the wheat cranks, can you?

DR. E. P. MILLE.

can you? New York City.

How to, Make Farming Pay. J. W. SHIVE, BURRTON, KANS.

There are five essential things in farming. We must have a farmer, a farm, good teams, good machinery, and farming. We must have a farmer, a good seasons.

Now in discussing the farmer as a man I presume you will be a little surprised when I say he is a scarce article (in this community). He exists more in name than in realty. The farmer to be successful should have greater attainments than any one following another profession. I mean he should have a greater diversity of knowledge. While men of other professions are experts in one thing the farmer should be conversant with all, or in other words the farmer should have a broader education than in any other profession. Again in regard to capital. It takes more capital to farm right than any other occupations.

The farm, the stock, and the ma-chinery are the farmer's capital. Now in order to make a business pay we must reckon from the capital and labor invested. I think it is a mistake for a man without any capital to try to farm; again I think it a mistake for a man with large means to farm. The first is too poor, the second too rich, and both interfere with the man who is best suited to farm. I think you have in your minds about the kind of a man am trying to tell you about. I mean a man of broad guage, one who knows a good farm, one who knows what dif-ferent soils are good for, one who knows how to diversify his crops so as to keep his land fertile and in good condition. All the land here is good for something but the man who does not know what is is good for will make a

mistake in farming.

The teams on a farm should be large and able to work and of such breeding as will make them proud of their masters. Such teams, if mares, will be profitable on the farm even when not at work.

Now in regard to the machinery. I don't believe that a farmer should buy every new-fangled thing that comes along but he should have good substantial machinery such as is suited to the work, then it should be taken care of. A good coat of paint just before it is placed in the shed will help it wonderfully and will keep it from rusting.

Now comes the seasons. These are something we can't make but we may guard against their effects. We must plant and cultivate as if we expected a crought every year. Then if it comes we are ready for it and if it does not come we have not lost anything by being ready for it.

Land should be well prepared and planted in season, neither too early nor too late. In this climate corn should be planted from the 15th of April to the 10th of May. Oats should be sown in March and wheat in September as a

In order to be successful the farmer must raise what he uses on the farm. He should raise his meat, his bread, his fruit. his fuel, and his fowls. He

can stand the siege of drought and trusts for at least one year. He should be able at all times to judge of the future markets with such certainty that he may market his cattle, his hogs, his horses, his grain, on the highest market for it is not the cost of production that we farmers are after but the profits.

Now to sum up the whole matter the farmer must sell more than he buys, he must make more money than he spends and have his accounts balance on the right side of the ledger, and in order to do this he must plant in good and well prepared soil, plant in season and cultivate in a thorough manner. He must have a diversity of crops and such as are adapted to the soil. His stock must be well bred, well fed and well sheltered not a mangey scrub among them.

It is as easy to raise a good animal as a poor one.

The farmer to be successful should like his occupation. He should have his work planned some years ahead and make all things work to a successful ending, turning failure, if it should happen, into success. He should be as nearly independent of all other occu-pations as the nature of the case will permit. Now, finally, brethren, it is easier to preach than to practice, easier to give than to take advice and I hope if I have erred in this paper you will set me in the right for I know I have touched only of the high places and have entered into detail in no particular case but I know that a good farm judiciously handled in Kansas will pay a handsome per cent on the investment.

I now leave the details for future discussion as to means and variety to be employed by the farmer in his various stages of success.

Proper Corn Culture.

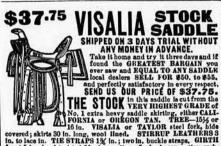
The practical man is guided by the repeated efforts of successful men and is thus a learner from their experience. It is no longer required of one to go through all the details of trying theories when an abundance of reliable testimony of the truth is obtainable.

Many years ago the Tower Brothers experimented with the theory of shallow cultivation for corn, in Illinois, and



became so thoroughly convinced that it was the true policy and adapted to most all regions that they have ever since devoted their energies to placing in the hands of every farmer the right the hands of every farmer the right tools for successful work. The result is the wide use of Towers' Surface Cul-tivator, a perfect picture of which is here shown. They have an elaborate manual, giving facts and discoveries and the experience of many successful farmers, in the corn-field, which may be secured by addressing J. D. Tower & Bro., 14th St., Mendota, Ill.

Failing to find relief from the grip with old methods, I took Dr. Miles' Pain Pills, Nervine and Nerve and Liver Pills and was permanently cured."-Gust. Egan, Jackson, Mich.



INL OR UUN VERY MIGHEST GRADE OF THE METERS OF THE METERS

The Stock Interest.

Conducted by J. G. Haney, Assistant in Feeds and Feeding, Kansas Experiment Station, Manhattan.

THOROUGHBRED STOCK SALES.

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

January 33, 24, 25, and 26, 1901—T. F. B. Sotham, Herefords, Kanass City, Mo.
February 6, 7, 8, 1901—Combination sale of Galloways, at Omaha, Neb.
February 7 and 8, 1901—Steele Bros., Eagle & Son, and others, Herefords, Kansas City, Mo.
February 19-20—Armour, Funkhouser and others, at Kansas City. Kansas City.
February 27-March 1, 1901—C. A. Stannard, Scott & March, and W. S. Van Natta & Son, Herefords, Kan-

sas City.
March 5, 1901—T. J. Wornall, Mosby, Mo., Short-horns, Kansas City, Mo.
March 12, 1901—Gifford Bros., Milford, Shorthorns anhattan, Kans. March 19, 1901—H. O. Tudor, Shorthorns, Holton.

March 27, 1901, Combination sale of Galloways, at March 27, 1901, Combination sale of Galloways, at Chicago, Ill. Frank B. Hearne, Manager, Independence, Mo. March 29, 1901—B. O. Cowan, New Point, Mo., Short horns, Kansas City, Mo.

Hog Cholera Preventive.

Mr. V. B. Howey, of Topeka, the vet eran breeder, after suffering one siege of hog cholera several years ago, found in an agricultural paper the following recipe for prevention of the dead dis-

Chlorate potash	.25
Golden seal 2 lb. Powdered nux vomica 2 lb. Powdered gentian 3 lb. 4 oz.	2.00 .50 .85
Mix together	\$4.45

Dose 1/2 teaspoonful for 100-pound hog once a day as a preventive. hogs are sick give 1 teaspoonful twice a day. If very sick give calomel twice the bulk of a grain of corn and ½ pound salts in water per 100 pounds,

and follow with above prescription.

Since adopting this preventive Mr. Howey has suffered no losses and is not greatly disturbed with anxious fears even when the cholera is in the neighborhood. The recipe can be filled by any druggist.

Better Care of Herd Sires.

EDITOR KANSAS FARMER: -- I was very much impressed recently by a letter from an old customer who bought a bull calf of me in the winter of 1894-5 for \$40, which was all we could get for them then. The buyer of that calf pre-fers to get a bull when a calf well under a year and raise him himself. This implies that he is a good feeder and stockman, who gives careful attention to the feeding and development of his stock, all of which is evident from the sequel which followed. He and his two sons and a son-in-law used him to great advantage for six years and then sold him for \$150. A great sermon might be preached to Kansas stockmen with the above for a text. The majority of bull buyers think \$75 a very high price for a good bull calf under a year old, but the chances are if they would feed and develop them and keep them in good condition, they could sell them at a good advance over the purchase price in two or three years. Instead they are generally stunted by scant feed and overwork, and practically ruined for future usefulness, and have to be sold for a song, or fed for beef.

And yet the loss does not stop there, because a stunted, poorly fed bull, in a low condition, with weakness and loss of vigor resulting, can not get strong, vigorous and robust calves, no matter how good his breeding may be. I hope all stockmen who read this may think it over, and come to the conclusion to give their herd bulls a better chance, as it will surely put money in their pockets in more ways than one.

Dunlap, Kans. D. P. NORTON.

Abortion in Cattle.

EDITOR KANSAS FARMER:—I would like to hear how other farmers get over an attack of abortion. A good many herds in this part of the country are infected with the disease. Our herd is badly infected. One cow aborted in the fall of 1899. I watched the herd closely, but saw no signs of other abortions and concluded that the cow must have been kicked by the horses or hurt some other way, so paid no attention to it. The rest of the cows calved all right.

In the fall of 1900 the cows began to abort, and they are keeping at it. We have only four calves out of twentyone cows, but there are several cows to

Some farmers tell us that the best way to treat abortion is to let it wear itself out. One farmer tried clisters on his cows, but he did not succeed in curing the cows. Some people say to sell out and get a new herd, but farm-

ers that have tried new herds say that the new herds become infected right away. We had the disease once beaway. fore, but not as badly as we have it now. In this case the cows came out all right the next year.

We have a number of heifer calves nearly a year old. Since they were weaned they have been kept from the rest of the herd. Suppose we buy a new bull and put it with these heifers and with the cows that calve all right. What would be the result? We let the bull run with the cows the year round. Does that have anything to do with the disease? Will the disease wear itself out in time?

Wabaunsee, Kans. E. L. Cottrell.

The following press bulletin, dealing with this subject, was issued by the Kansas Experiment Station in November, 1899, and appeared in the Kansas FARMER of November 30, 1899. It is repeated here for the benefit of new subscribers and those old subscribers who have not kept files of their Kansas

Infectious Abortion in Cattle.

The term abortion means the expulsion of the offspring before it can live outside of the womb. The ex-pulsion of the offspring after it is ca-pable of an independent existence and before the full time of pregnancy is up is called premature parturition.

Isolated cases of abortion occur here and there, and their causes are almost as numerous as the cases of abortion. Injuries, catching cold, general disease, improper diet, certain drugs, excessive inbreeding, etc., may be mentioned as prominent causes.

Sometimes abortion occurs in dairy herds in the manner of a plague; many or all animals in a stable may be affected and none of the above class of causes can be observed to have acted. This is infectious abortion and is caused by a specific organism or group of organisms. The disease is transmitted from animal to animal by direct contact. The genital organs of the male or female, walls, posts, bedding, or any other object which is in easy reach and is likely to come in contact with these regions, may act as carriers of the contagion and thus aid in spreading the disease.

SYMPTOMS.

Since we can not hope to check the progress of a case of contagious abortion, once infection having taken place, the premonitory symptoms will not be mentioned.

The symptoms of the act of abortion are plain enough in most cases not to need discussion. During the first three months of pregnancy, however, the abortion may take place and never be suspected if the small foetus is not tound. Soiling of the tail with mucous, blood, etc., will then indicate what has taken place. Sometimes the udder becomes tense, and frequently milk is secreted.

TREATMENT.

The best treatment, which unfor-tunately can not always be resorted to, consists in the complete separation of all pregnant animals from the rest. Immediately after delivery (whether normal, parturition or abortion) remove the afterbirth and burn it. Burn all the litter with which it or any of the fluids have come in contact. Dis-infect the animal's stall with 5 per rigate the vagina and uterus with a 1 per cent solution of creolin twice daily until all unnatural discharges cease.

For irrigation, use a large funnel to which is attached a ½-inch rubber tube five feet long and with a smooth, hard rubber nozzle 6 to 8 inches long at its end. Fill the funnel and tube with the liquid, insert the nozzle and regulate the pressure of the liquid by raising or lowering the tube.

In addition to this, wash the region of the external genital organs of all pregnant cows every day with to 5 per cent solution of carbolic acid or a one-tenth of 1 per cent solution of bichloride of mercury. Disinfect the entire stable twice a week with a similar solution. Internal applications of 30 drops of carbolic acid dissolved in a pint of water and given as a drench every other day to the pregnant animals is recommended as successful in some cases.

Finally, burn all suspicious manure, avoid contact with infected animals and breed to males from herds known to be free from the disease; but never breed to such a male without previously disinfecting the genital organs of the female by injecting gently, into the vagina, a few quarts of a 1 per cent solution of creolin. By following these directions minutely we can hope

to control the disease in the course

of a year.

If aborting cows are not of special value as milkers, or for other pur-poses, fatten them for beef.

Cattle in South America. MURRAY'S PRICE CURRENT.

Each year South America increases n importance as a rival to the United States as a producer of beef. There are now in the Argentine, Paraguay and Uruguay fully 30,000,000 cattle, and in the United States 44,000,000. While the cattle ranges of the United States are becoming more and more restricted each year, there are in the three South American countries named vast regions suitable for cattle raising which have not as yet been utilized. In Texas now the cattle no longer roam over vast ranges, but are practically kept in pastures, the grazing grounds being in-closed in miles upon miles of wire fences. The old-time cowboy, too, has become largely a "fence rider," patrol-ing the outsire of the enclosures to see that the fences are not broken down, and that the cattle are not lost, strayed or stolen. Many cowboys are said to have gone to South America, where they have taken up their old life alongside of gauchos on the wind-swept pampas.

In Paraguay a large region called the Chaco has just been opened up to stockraising. It lies in the northwest corner of Paraguay between the Paraguay River, a navigable stream, the Pilcom-ayo River and the Bolivian boundary. The climate is healthful, and though it is warm there in summer, it is never as hot as it was in New York last

summer. The prairies are clothed with a variety of good grasses, and the Chaco lands are acknowledged to be the best fattening grounds in all Paraguay. Good land can be bought in the Chaco for \$1,000 a league, and one league will suport 1,000 cattle, and two herds of 1,000 each can be fattened on it in a year. All the expenses of raising cattle there are ridiculously small compared with the expense in the United States. A man can put steers on the range in Paraguay, all expenses paid, at a cost of \$8.50 a head, and these he can sell when fattened for \$12.50 a head. Experienced cattle men in the Chaco have cleared as much as \$8,000 the first year on an expenditure of \$10,500. They put in \$1,000 for land, \$8,500 for cattle, and \$1,000 for labor and other expenses. Living and labor in Paraguay cost about one-eighth as much as they do in the United States. The gauchos are paid \$3 a month in Chaco. In the United States the cowboy's wages used to be \$30 a month. The gaucho's food, which is supplied to him, costs about \$3 a month. Cowboys are furnished with food costing \$10 a

month. The cattle of northern Paraguay are similar to the Texas cattle, being of fully as good stock and much tamer and more easily managed. Though there are now in northern Paraguay only enough cattle for a small beef industry, their numbers are rapidly increasing, and in three or four years this region bids fair to be the center of a great beef industry.

All that is needed to "boom" the cattle raising interests of this part of Paraguay is an outlet for the beef. With the extension of railways and the increase of river navigation this can readily be obtained, and the cattle of the little interior republic will join with the herds of the Argentine and of Uruguay in furnishing the "roast beef of Old England" to the world in competition with the United States. Excellent "stocking cattle" can easily be brought on to the ranges of the Chaco from the Brazilian province of Matto Grosso, which adjoins the Paraguayan border.

Cattle diseases in the favored land of Paraguay are seldom seen. In the north they are unknown. In the south one occasionally runs across cases of blackleg, but even then only among calves, and the percentages of such cases is never alarming. Loss of cattle owing to the cold of winter or to a dry season is unknown.

What Ails the Animal?



Bottle Guaranteed

Cures Spavin, Curb, Splint, Ringbone, etc. A reliable blister and coun-ter-irritant, and a certain hornstop.

Lamont, Kansas, June 26, 1990. Chicago, Ill. Money Order for \$2, bottle of your Lump Jaw Cure, yen or eight cases with the first Respectfully. FRED BRANKMANN.

Our Illustrated Pamphlet on cure of Lump Jaw nd other diseases should be in the hands of yery farmer and stockman. Free to readers of

FLEMING BROS., Union Stock Yards, Chicago Reference: Drover's National Bank.

It will be seen that northern Paraguay is an ideal place for the raising of cattle. As yet, of course, these South American regions have not the facilities for transportation which the cat-tle districts of the United States possess, but it is only a question of time when they will have them, and then can the United States hold its own in the export of beef?

The great land of cattle ranges, the Argentine republic, is as large in area as Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma, Montana, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, ldaho, Washington, Oregon, and California together, and how much of the country still remains available for exploration may be judged from the fact that only about 6 per cent of its 240 million acres of land available for agriculture-15 million acres-is under cultivation. The value of animals and their products exported by the Argentine increases at the rate of about 4 million dollars a year. Uruguay, though a comparatively small nation, has excellent grazing grounds, and four years ago was reported as having 5,-881,402 head of cattle on its ranges, number which has increased considerably since.

Southren Brazil joins with the Argentine, Paraguay and Uruguay in competing with the United States for the cattle trade. In the state of Rio Grande do Sul the cattle industry is already important, and is growing every year. The country is favorable for cattle raising, labor is cheap and living costs little compared with living in the United States. Land for cattle raising purposes can be bought low and ports for shipping cattle abroad are easy of access. In 1896, 215,000 head of cattle were slaughtered in Rio Grande do Sul. In two years the number went up to 340,000 head, and in the last two years the increase has probably been as great in propertion. The number of British and German steamers running to South America is increasing, and the southern portion of the continent is no longer a negligible quantity with the raisers of cattle and sheep and growers of grain in the United States. Great as has been the development of the cattle trade in South America of late years, its increase in amount and importance will be still more rapid with the increase of railroad facilities. Given equal facilities of transportaton, and it is easy to see what a formidable rival the cattle industries of this country will have to contend with. In fact, South America is a rival now of enough importance to demand and receive at-

FREE BOOK ON HOW TO DIP AND FEED MOORE'S REMEDY and cure Mange, kill Lice and Fever Germs, remove Worms, Prevent Choiers, at a cost of Five Cents Per Hog Per Year. HO MOORE CHEMICAL CO.. 1503 Genesee Street, - - Kansas City, Me

2.65 Is the Price of This Buggy and two best best on the best begy you ever saw for the money and not just as described and antifactory in every way, returnit to us; we will pay you have you way, we no Not Ask FOR ANY MONEY with order. You have

for two years and guarantee satisfaction.

We Have No Agents. That's Why We Save You Money.

DESCRIPTION.

Wheels and gear all second growth hickory, all ings Norway iron. (Wheels any size.) Azles 15ings Norway iron. (Wheels any size.) Azles 15ings 1.25 extra); top is lined with all wool top lining, back stays padded. We furnish aids curtains, ron boot and full length brussels carpet for bottom of body. We guarantee safe delivery.

Ton boot and full length brussels carpet for bottom of body. We guarantee safe delivery.

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We guarantee safe delivery.

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apron boot and full length brussels carpet for bottom of stays.

OUR VEHICLE CATALOGUE illustrates and describes the largest and most complete line of buggies, Sin., saddle OUR VEHICLE CATALOGUE road wagons, Phastons, Surreys, Spring Wagons, Carts, Harness and Harness to Nata ever shown in one book. IT'S FREE. SEND FOR IT. MARVIN SMITE CO., 55-57-59 N. Jefferson St., C

Last Week's Shorthorn Sales.

Last Week's Shorthorn Sales.

On Thursday and Friday, the 17th and 18th inst., 133 head of Shorthorn cattle were sold at the stock yard sale pavilion at Kansas City.

The cattle were from the herds of Neal N. Gallagher, of Highland Station, Kans.; J. J. Dimmock, of White Cloud, Kans, and R. M. Lale, of Odessa, Mo. One hundred and thirty-two head were sold, the average paid for the whole offering being \$95.57. This is the lowest average yet made at a sale of pure breds in the new pavilion, but the result is easy to account for. It was due to the age and condition of the cattle. There were a large number of very young ones among them, and none had been put into condition for the sale. The mature cows with calf and the aged bulls sold well, but the young stuff held down the average.

The highest price of the sale was \$215, which was paid by Henry Selecman, of Eight Mile, Mo., for J. J. Dimmock's year and a half old bull, Alexandrian 5th. The top price on the 17th was \$200, which Ed. Idol, of White Cloud, Kans., paid for the cow Lady Alexandrian 2d. On the two days' sale ninety cows and forty-two bulls were sold.

The 42 bulls averaged \$99. The principal approach is the contract of the contract of the cattle of the cow Lady Alexandrian 2d. On the two days' sale ninety cows and forty-two bulls were sold.

days' sale ninety cows and forty-two bulls were sold.

The 42 bulls averaged \$99. The principal consignor was Mr. J. J. Dimmock, of White Cloud, who made the bulk of the offering. Mr. Gallagher's consignment averaged very satisfactorily. In fact, all the consignors were very well pleased with their first effort, although they thought that some of the good things sold too low. The heaviest purchasers were, McIntosh of Kansas City, who purchased over \$2,000 worth. Other heavy purchasers were: W. C. Lee, of Toledo, Kans.; W. W. Taylor, of Sawyer, Kans.; Penrod & Hopper, of Pratt, Kans.

The complete list of purchasers is as

premier herd bull, Basanio 6441, is a hald brother to the champion bull, King Hensol 9967, that was senior champion at the late international show held at Chicago. Basanio was hampion, any age, at Iowa state fair, 1895. The well-known Galloway breeder, S. P. Clark, bred both of these bulls and pronouned Basanio as the best bull he ever bred.

Twenty of the animals in this sale are daughters or granddaughters of Crusader. There are several, too, that are of the Hardin strain.

The Grace draft are the best of last year's calf crop, and one of them will be his herd buil, Earl of Derby.

The Harris draft are sons of the noted King Hensol, and show much promise of the worth of their sire.

It may be news to many, especially those unacquainted with the Galloway, that the demand for the "shaggy coated Scotch" is far greater than is the supply. It would take half a score of car-lots to meet the inquiries that have come from the Southeast within the past few days.

One Hundred Galloway Bulls for Texas.

The leading breeders of Galloway cattle The leading breeders of Galloway cattle have made a big combination sale of 100 pure-bred Galloway bulls, which were shipped to southwest Texas, 1,400 miles from Kansas City, to the ranch of J. D. Jackson, Alpine, Texas. Mr. Payne, of the Mallory Commission Co., was instrumental in securing this order. The bulls were purchased as follows: 36 head from E. W. Thrall, of Eureka, Kans.; 12 head from J. M. Lowe, of Kansas City; 20 head from C. N. Moody, of Atlanta, Mo.; and the remainder from various Kansas and Missouri herds.

Farm Herd of Poland-Chinas, reports a very thriving business. Among the more recent sales was one boar and seven sows to E. Sturdy, of Bradford, Kans., and four sows and one boar which went to two Oklahoma breeders. In concluding a report of recent sales Mr. Jordan says: "Am getting lots of inquiries from Kansas Farmer readers."

Among the recent sales of Shorthorn cattle from leading Kansas herds, are some made by the Kennedy Pasture Co., of Corpus Christi, Texas, who purchased from T. P. Babst, of Dover, Kans., 11 heifers and 17 bull calves, and from T. K. Tomson 8 heifers and 10 bulls. The ages of the calves purchased were from 5 to 15 months, and the prices realized were from \$100 to \$400 each.

Every Kansas feeder is interested in de-horning cattle, and naturally desires to know the best tools on the market for that purpose, and to such we suggest that they write to M. T. Phillips, Pomeroy, Pa., for his latest catalogue regarding de-horning, which will be sent free to such as mention Kansas Farmer. Mr. Phillips is entirely responsible, and orders sent to him will receive prompt attention.

The forthwith coming Berkshire Breeders' Convention sale, to be held at Kansas City. Saturday, February 16, 1901, is an event of special interest to every one desiring first-class Berkshire hogs from the leading herds of Missouri, Kansas and Nebraska. The sale will be held under the auspices of the American Berkshire Association. See the regular announcement in the Kansas Farmer, and watch for further particulars in subsequent issues.

The Kansas Farmer appreciates the fol-



WORK THE HORSE IF NECESSARY

Laramie, Wyo., Aug. 20, 1899. Dear Sir:—I had a horse cut his foot badly in a mower; and applied your Balmoline. He never even got STIFF on it and the FETLOCK was badly cut. WORKED him right along. faith in Balmoline is unbounded.

RICHARD KING.

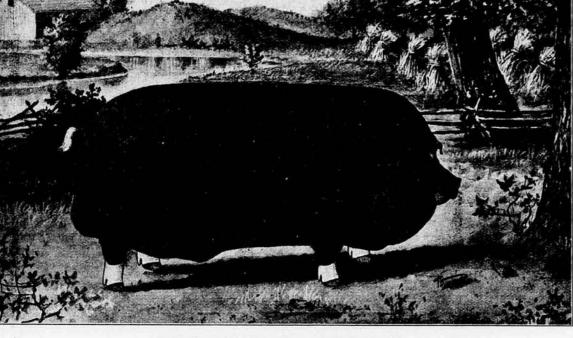
prepared to fill orders for bulls, or fe-ruales of all ages, either in car lot or single orders. Any one desiring Simon pure Galloway cattle should call on or write Mr. Platt.

Our readers will notice a change in the advertisement of Idlewild Shorthorns, owned by W. P. Harned, of Vermont, Mo., in which the blood of Roan Gauntlet and Champion of England can be had through his herd bull, Godoy 15675. His dam, Imp. Golden Thistle, is by Roan Gauntlet, his grandam, Golden Lady, by Champion of England. A few years hence it will be next to impossible to get this blood direct. Godoy has more prize sons heading first-class herds than already any other living Cruickshank sire. Among this number might be mentioned J. W. Smith, Baron Dudding, Col. Casey's Admiral, Godoy, and F. M. Marshall's great big Orange hero, all of which sons are breeding and are making records. If you want to get next to this line of breeding see Mr. Harned.

A Poland-China event of importance to a great many western breeders will be Axiline's annual brood sow sale, to be held at Oak Grove, Mo., thirty miles east of Kansas City on the Chicago & Alton railroad, on Thursday, January 31, 1901. There will be 40 brood sows, 10 open gilts, 10 spring boars, all sired by Missouri's Black Chief, or bred to his best natured son, Chief Eclipsed 22499. The Poland-China breeding fraternity appreciate the fact of the demand and great inquiry for pigs sired by Missouri's Black Chief, and this will be the last chance to get pigs sired by this famous hog. Look up the advertisement in this issue, and write for catalogue, and if you can not be present bids may be sent to the auctioneer, or to H.. A. Heath, Topeka, who will look after the matter.

The next important public sale of Herefords will consist of 45 bulls and 75 cows and helfers, to be sold at public auction at the Kansas City Stock Yards sale pavillon on Thursday and Friday, February 7 and 8, 1901. The consignors are Steele Bros., Belvoir, Kans.; E. A. Hagle & Son, Rosemont, Kans.; Miller & Boulch, Kirks-

"I was given up to die from heart and nervous troubles caused by grip. Six bottles each of Dr. Miles' Heart Cure and Nervine cured me."—Mrs. John Wollett, Jefferson, Wis.



MISSOURI'S BLACK CHIEF 19399

A famous sire (now dead), is the sire of the entire Axline offering of January 31, 1901. See advt.

follaws: Ed. Idol, White Cloud; W. C. Lee, Toledo; William Sloan Kansas City, Mo.; A. W. Baker, Strong, Kans.; J. S. McIntosh; W. W. Taylor, Sawyer, Kans; B. O. Cowan, New Point, Mo.; Henry Hahn, Fall City, Neb.; A. S. Kleinfelter, Hlawatha, Kans.; Wood Hopper, Pratt, Kans.; T. W. Morse, Mound City.; G. W. Johnson, Lexington, Mo.; B. H. Larken, Corder, Mo.; C. F. Wolf & Son; G. D. Osburn, Colwich, Kans.; Andrew Gyson, Leavenworth, Kans.; G. H. Roesener, Riley, Kans.; Fred B. Glover, Almod, Kans.; J. J. Holt, Savannah, Mo.; Capt. W. S. Tough, Kansas City, Mo.; Chas. Lee, Independence, Mo.; J. J. McKittrick, Greenwood, Mo.; W. W. Taylor, Sawyer, Kans.; Walter Jones, Warrensburg, Mo.; C. A. Hopper, Pratt, Kans.; Frank Hunn, Arrington, Kans.; John McCoy, Sabetha, Kans.; Henry Selectman, Eight Mile. Mo.; H. L. Aitken, Pawnee City, Neb.; B. H. Larkin, Corderoy, Mo.; E. D. Ludwig, Sabetha, Kans.; J. S. Parsons, Verdon, Mo.; L. Wilf, Kansas City, Mo.; D. P. Rush, Coffeyville, Mo.; T. L. Lale, Odessa, Mo.; H. S. Celvinger, Tina, Mo.; Henry Leledmon, Eight Mile, Mo.; Jas. Stone, Cedarvale, Kans.; A. S. Klinefelter, Hiawatha, Kans.; Geo. B. Campbell, Kansas City, Mo.; Fred D. Glover, Atwood, Kans.

Next Galloway Sale.

The attention of all interested in registered Galloway cattle is called to the announcement found elsewhere in this issue, wherein one finds that S. M. Winslow, of Oskaloosa, Mo., will disperse his entire herd of choicely bred Galloways without reserve or by-bid at mansas City. The

If I had Grip I would use Dr. Miles' Pain pills and Dr. Miles' Nervine. Sold at All Druggists.

ᡯᢩ᠘ᡷ᠘ᢋᢆᢛᡯᢛᢋᢆᢛᢋᢆᠪᢛᡯᢐᡯ**ᢐᢛᡮᢐᢜᢐᡳ᠂ᢜᢦᡲᢦᢝᢐᢝᢐᢝᢝᢝᢝᢝᡥᢛᡮᢛᢜ**ᢛᢜᢐᢜᡑᢜᢝᢝ᠕**᠂ᠻᢦ**ᢝᢛᡛᢛᢜᢛᢜᢛᢜᢛᢜᢛᢜᢛᢜᢛᢜᢛᡮᢌᡷᡪ*ᢢᢐ*ᠼᢣᢋᢣᢋ Gossip About Stock.

The International Food Co., of Minneapolis, Minn., presents on another page of this issue a large and attractive advertisement. Special attention is called to it, and our readers are requested to answer the four questions asked therein.

S. A. Converse, importer and breeder of Red Polled cattle, of Cresco, Iowa, states that he can still spare some good things for foundation herds, and head them with the young bulls sired by his herd bull that took first premium at the National Live Stock Exhibition recently held at Chicago.

In this issue appears for the first time the advertisement of Vesey's Star Anti-Cholra Cure, room 263-F Exchange Building, Kansas City, Mo. This preparation has been in successful use since 1883 and is said to have superior merit. The company handling it is a reliable one. Write them for full information.

The seventh annual convention of the The seventh annual convention of the Oklahoma Live Stock Association will be held at Woodward, Okla., on February 12 to 14, 1901. A splendid program has been arranged and a red hot program is guaranteed by "Oklahoma Bill," otherwise known as W. E. Bolton, of Woodward, Okla.

On February 16, at Kansas City, Mo., Berkshire breeders will have a chance to purchase 100 animals which will be sold at public auction by Harris & McMahan, King, Stannard, Houk, N. H. Gentry, and others. The best Berkshire blood of Missouri and Kansas will be offered on that occasion. See advertisement next week.

Mr. M. W. Andreson, Independence, Mo., last week sold the young Bracelet bull, Winfield Scotchman, to S. M. Sidle, Winfield, Kans. This fine young bull was sired by 166th Duke of Wildwood 134671. His dam is Barrington Bracelet 2d, grandam, Bracelet by Waterloo Duke, and traces to Imp. Bracelet by Duke of Athol. Mr. Anderson reports his cattle doing well and wintering finely.

A. M. Jordan, breeder of Chinquapin

lowing unsolicited testimonial from Mr. J. B. Osburn, Erie, Kans., who writes as follows: "To Kansas Farmer Readers—I desire to say that this paper is the very best medium that I know of in which to advertise pedigreed stock of all kinds. A few weeks since I sent in a small advertisement of Clydesdale horses and Hereford cattle, and have already sold my stallion and my young Hereford bulls, except one which will be priced to your readers."

The following officers were elected at the annual meeting of the American Chester White Record Association, held last week at Dayton, Ohio: President, I. T. Cummins, Cedarville, Ohio; vice-president, F. A. Branch, Medina, Ohio; secretary-treasurer, Carl Freizan, Dayton, Ohio; board of trustees, W. H. Pool, Delaware, Ohio; N. P. Herstiner, Ansoria, Ohio; F. P. Herdin, Lima, Ohio; C. Hintz, Fremont, Ohio; T. N. Harrod, Belleanter, Ohio; J. L. Berringer, Marlon, Ohio. Executive committee, W. H. Pool, F. P. Hardin, C. Hintz.

F. W. and O. B. Cain will sell on Wednesday, February 6, 60 head of Shorthorns, consisting of 22 bulls and 38 cows and heifers. F. W. Cain, the senior member of the firm, founded the herd in 1893, and in 1896 secured the Brown herd at New Berlin, Ill., consisting of 28 head. Twenty-three of these were females, consisting of Duchesses, Young Marys, and Imported Forest Queens. A draft of 43 head were subsequently added to the herd, many of them Scotch-topped. Many of the females will be safe in calf to the herd bull, Arcale 142286, a Mysie, that won first prize at the Iowa state fair in 1899.

In this week's Kansas Farmer appears an advertisement of the largest herd of Galloways in the world—the property of M R. Platt, Kansas City, whose farm, one of the very best equipped breeding establishments in the/West, is located one-half mile south of the Kansas City Stock (Yards, in Johnson County, Kansas. However, his business is located near the stock yards exchange, at 1613 Genesee street. There are no grades kept on the farm, all being pure-bred cattle, richly bred, and of the choicest quality. He is

YOU GET YOUR PAY THE SAME DAY YOU DO THE WORK

'e want agents to distribute advertising matter for us the country. Farmers, rural mail carriers, liverymen at those having horse and wagon can do it best. Many our agents are making from \$3.00 to \$5.00 a day. Write r particulars. State what business you are engaged in, and give references. Address Lock Box 267, Chicago, Ill.

ALFALFA SEED

We are right in the heart of the great alfalfa fields of western Kansas, that produce seed strong in germinating power. BUY IT WHERE IT'S GROWN and save money. For prices and

GEO. H. MACK & CO., Garden City, Kans.

PROTECTED The verdict of thousands of stockmen who use Verey's Star PICS articholera. It not only protects—it cures cholera hogs. It makes them grow and fatten; it causes early maturity. Sold under an absolute guaranty. You can deposit money in bank pending results. Call on or address ANTI-O-HULERA CO., 263 F Exchange Bldg., Kansas City Stock Yards

IMPROVED LINCOLN OATS

If interested in Seed Oats, address J. E. BRECKENRIDGE, Rural Route No. 3, - Rockford, Ill.

-RECTOR'S-

IMPROVED CREAM SEPARATOR

The greatest time and labor saver of the entury for butter makers. Separat AUTOMATICALLY in 40 minutes. Gain cream from 5 cows in one month pays fit. Agents wanted. One nundred per ce profit. Women successful as men. F catalogue and wholesale prices address, J. A. RECTOR, 107 K. & P. Bdg, Kansas City, Mo

Reference, Western Exchange Bank.

ville, Mo.; and E. Corkins, Bethany, Mo. This offering will be one of the surprising ones of the year, owing to the very high character and quality of the bulk of the cattle included in the sale. Some of the famous prize winners from Kansas and Missouri will be included in the sale; and it is the writer's opinion that no better offer of females will be made anywhere than the large number included in this sale. Send for catalogue at once, and watch carefully for some personal observations in next week's Kansas Farmer.

In this week's Farmer will be found the announcement of the next public sale of the Armour-Funkhouser, of American and imported Hereford cattle, to be held at the Kansas City Stock Yards sale pavilion, February 19 and 20. The splendid result of their last sale is an indication of what the present offer will be. The apportionment of cattle in this sale is as follows: Kirk B. Armour, 60 head—21 bulls, 39 cows; James A. Funkhouser, 20 head—8 bulls, 12 cows; Riverside Hereford Cattle Co., 16 head—6 bulls, 10 cows; H. B. Watts & Son, 5 head—3 bulls, 2 cows; Thos. Clark, 4 head—1 bull, 3 cows; Geo. Leigh, 5 head—1 bull, 4 cows; Ryan Bros, 1 bull; James E. Logan, 6 bulls. The offering as a whole, from a Hereford standpoint, is ideal. Catalogues may be had by addressing Kirk B. Armour, of Kansas City; and to loves of the white-face those mentioning the Kansas Farmer may also receive some handsome pictures of Herefords suitable for framing.

on another page this week will be found the announcement of the Poland-China sale, of the McCune Herd, at McCune, Kans., Messrs. Zeigra Bros. being the proprietors. This offering of 72 yearling sows and gilts, with a fine lot of spring gilts and boars, is the result of their own breeding, not an outside animal being included. They are all by the noted boars Crawford County Chief, Western Wilkes, or Model Beauty, a son of Klever's Model—their three nerd boars—and out of such sows os Fashion Beauty 2d, Actress Corwin, Jewel Wilkes, Wilkes Girl, Saunder's Lady, Lady Wilkes, Sydnor's Gem, Lady Best, and the many others found in this herd. A representative of the Farmer visited the herd last week, and reports that he found it far better than was expected. In fact, taken all through, and considering its size, this herd is one of the best and most even ones seen in a long time. The herd now numbers over 300. More extended notice will be given it next week.

During the old days of the state fair in Kansas, one of the best and strongest exhibitors was Joseph Watson, of Beatrice, Neb. He was always a leading importer, and a sure winner at all the state fairs at which his horses were shown. He is now located at Lincoln, Neb., and president of the firm of Watson, Woods Bros. & Kelley Co., who have on hand a large number of very select stallions, Percherons and English Shires. Mr. Watson has recently returned with a third importation for the year 1990, making the twenty-fifth shipment of imported horses he has made from Europe since he has been in business. During the state breeders meeting at Lincoln, Neb., last week the Farmer representative looked over the last importation, and found a large number of black stallions of splendid conformation, just coming 3 and 4 years old. Among the English Shires are a number from the best prize winners in England, and range in age from 1 to 6 years old. Those of our readers in quest of first-class stallions can not afford to overlook this establishment. Their advertisement appears regularly in the Kansas Farmer.

when. Their autoritisem appears regularly in the Kansas Farmer.

Three red Cruickshank-topped Shorthorn bull calves are advertised on page 96 of this paper by O. E. Morse & Sons, of Mound City, Kans. These bulls are the descendants—sons and grandsons—of the two Lady Elizabeth show helfers retained by Morse & Sons at the time of their dispersion sale in 1893. Both helfers were sired by Lord Warden 52506, a Scotchtopped bull bred by Col. W. A. Harris and showed by him at the head of his prize winning young herd in 1883. The 12 months and 7 months calves are out of these two cows. The older one is sired by Lavender King 4th 108682 (pure Cruickshank), that stood at the head of J. H. Potts & Son's prize winning young herd at the World's Fair. The two younger calves are by the Cruickshank bull, Gloster 187952, himself a show bull, and one of them—the 8-monthold—is out of a very showy, heavy milking cow by Lavender King 4th. The pigs offered for sale are a few good things of late summer and fall farrow, that were too young to go in the firm's hog sale of December 6. A few can be spared from one litter by Kansas Black Chief, and from one litter out of a sow by Missouri's Black Chief. Description, pedigree, etc., furnished on application.

In the Kansas Farmer this week is pre-

In the Kansas Farmer this week is presented the announcement of a closing-out sale of registered Shorthorn cattle and Poland-China swine that should readily attract the attention of all good stockmen who read this paper. Reference is had to the Priest & Moffit offerings to be made at Shenandoah, Iowa. Shenandoah enjoys the best of railroad facilities for reaching the farms and ranches of Kansas, as a glance at the map will readily show. Mention is made of this fact as preliminary to the main consideration. That these herds of cattle and hogs are thoroughly up-todate in every particular is a fact attested by a recent visit from a representative of Kansas Farmer. The cattle offering is given to one catalogue and the hogs to another. It is, therefore, important that the man who asks for a catalogue should say which one he wants, if not both. The catalogues can be sent in an hour's notice. Each is complete and explains everything. The reader will find the best

For Grip aches use Dr. Miles' Pain Pills. Sold by All Druggists.

blood lines represented, and if he attends these sales, February 13-14, he will find as good stock as will go under the hammer this year. It should be remembered that these are absolute closing-out sales. Mr. F. G. Moffitt, upon whom has devolved the active management of both herds, has determined to remove his family to California and must give up his herds. These herds, it is to be understood, are made up of such animals as have been selected and reserved for building up the herds to a high standard. When such well-established herds are to be dispersed it means more than is implied in the ordinary draft sale. An important feature of the cattle offering is to be found in the fact that the great breeding bull, Imp. True Briton, has been used in the herd the past three years. Fifteen of his daughters, mostly of breeding age, are included in the sale. The old bull himself, now in his teens, but in excelent form, and weighing not less than 2,300 pounds, will go under the hammer, together with a number of his young bulls. It will be a matter of lively interest, and well worth a trip from home, to see this famous old sire that has made a big chapter in Shorthorn history. There are a lot of his beautiful and well-developed helfers to go through this Shenandoah sale ring that would add laurels to any man's herd. They must be seen and studied to be fully appreciated. But there are many other good things also in this full offering of 75 head. If the reader can be persuaded to investigate early and be ready for the sale he will be amply rewarded for so doing. The Cruickshank bull, Scotchman 137020, is being mated with the True Briton helfers and others, and this feature is to be regarded as adding very materially to the attractiveness of the offering. A lot of good young bulls go in the sale. It s an all-red offering from start to finish. The Cruickshank bull, Scotchman, is also in sale, and a strictly choice offering of bred sows. They are bred in the purple, have extra good size, good shape, and they are prolific. Don'

"The gilts we are offering," write Dietrich & Spaulding of Richmond, Kans., "In our ad. are some of the best gilts we have raised this year. They are by Knox All Wilkes, Majestic Chief, and Ideal Black Chief, and Ideal Black Chief; the Majestic Chief and Ideal Black Chief gilts are ined to Ideal Black Chief gilts are bred to Imperial Chief. We are out of spring and summer boars, but have the best lot of fall pigs we ever raised. There are 3 by Majestic Chief, and 4 by Ideal Black Chief that would be hard to improve any way. We are shipping 2 or 3 pigs every day and will soon be out of everything but our fall pigs."

Kansas State Poultry Show.

(Continued from page 90.)
91; 1 hen, 91½; 2 hen, 90½; 1 pullet, 94½; 2 punet, 93½; 1 pen.

W. F. B. SPANISH.

H. W. Chestnut, Birmingham, Kans., 2 cockerel, 88½; 3 cockerel, 88½; 5 cockerel, 88½; 5 cockerel, 85; 1 pullet, 92; 2 pullet, 91½; 3 pullet, 91½, 4 pullet, 90½; 5 pullet, 89¾; 1 pen, 179.56. Special for largest display in variety scoring over 90.

M. A. Chesney, Topeka, Kans., 4 cockerel, 86; 2 hen, 88½; 3 hen, 88; 4 hen, 87½; 5 hen, 86½; 2 pen, 173.81.

S. S. HAMBURGS.

DeWitt Yates, Fairbury, Neb., 2 cock, 88½; 2 hen, 93½; 4 hen, 91½; 5 hen, 91½; 3 pen, 180.18.

Carl J. Welck, Ellsworth, Kans., 4

pen, 180.18.

Carl J. Welck, Ellsworth, Kans., 4 cockerel, 88%; 5 pullet, 91%; 4 pen.

Miss L. Cook & Bro., Oakville, Iowa, 1 cockerel, 90; 2 cockerel, 89%; 3 cockerel, 89; 2 pullet, 92½; 1 hen, 93%; 3 hen, 92½; 1 pullet, 92½; 3 pullet, 92½; 4 pullet, 91%; 1 pen 182.75; 2 pen, 181.50. Special for largest display in variety scoring over 90.

Good Bros., Cimarron, Kans., 5 cockerel, 881/2; 5 pen, 179.25.

HOUDANS.

W. L. Bullene, Lawrence, Kans., 1 pullet, 93; 2 pullet, 92; 3 pullet, 90½; 4 pullet, 90; 5 pullet, 90. Special for largest display in variety scoring over 90.

A. P. Chacey, North Topeka, Kans., 1 hen, 90½; 2 hen, 90½; 2 cockerel, 83½; 1

W. C. POLISH.

C. H. Musset & Co., Ft. Leovenworth, Kan., 1 hen, 91%; 1 cockerel, 91%; 1 pullet, 93; 2 pullet, 91%; 3 pullet, 91; 1 pen. Special for largest display in variety scoring over 90.

BUFF ORPINGTONS. Mrs. S. Rickett, Topeka, Kans., 2 cock, 89; 1 hen, 90½; 3 pullet, 90½; 4 pullet, 90½. Eccleston & Son, Topeka, Kans., 1 cock, 90½; 2 hen, 89; 1 pullet, 92½; 2 pullet, 91¾;

SILVER GRAY DORKINGS.

Eccleston & Son, Topeka, Kans., 1 cock, 91¼; 1 hen, 95½; 2 hen, 91½.

CORNISH INDIAN GAMES. A. L. Withers, Valley Falls, Kans., 1 cock, 90½; 2 cockerel, 89; 1 hen, 91½; 3 hen, 90½; 4 hen, 90; 5 hen, 89¾; 1 pen, Special for largest display in variety scoring over 90.

Geo. J. Bayless, Topeka, Kans., 2 hen, 90%.

PIT GAMES.

Abe Elliott, Topeka, Kans., 2 cockerel, 1 pullet, 2 pen. C. L. Ward, Narka, Kans., 1 cockerel, 2 pullet, 1 pen. Special for largest display in variety.

BUFF COCHIN BANTAMS.

W. C. Sherrill, Salina, Kans., 2 cock, 90; 1 pullet, 91%; 4 pullet, 90½; 3 pen, 180.62.

180.62.
N. R. Clark, Kansas City Mo., 3 cock, 83%; 3 hen, 91%; 2 pullet, 91%; 3 pullet, 90%; 1 cockerel, 90%; 2 pen, 181.06.
Heather & Snyder, Huntsville, Mo., 1 cock, 90%; 1 hen, 92%; 2 hen, 92; 5 hen, 91%; 5 pullet, 90%; 1 pen, 181.81. Special for largest display in variety scoring over 90.
L. V. Marks & Son, Topeka, Kans., 2 cockerel, 89%; 4 hen, 91%.

SILVER S. BANTAMS.

J. W. F. Hughes, Topeka, Kans, 1 cock, 91; 1 hen, 93¼; 2 hen, 93; 3 hen, 92¼. Special for largest display in variety scoring over 90.

GOLDEN S. BANTAMS.

L. V. Marks & Son, Topeka, Kans., 1 cock, 90; 2 hen, 88½. Special for largest display in variety scoring over 90.

B. B. R. GAME BANTAMS.

B. B. R. GAME BANTAMS.

Thos. Herron, Topeka, Kans., 1 cock, 944; 2 hen, 94½; 4 hen, 91¾; 1 cockerel, 95½; 2 cockerel, 94¾; 2 pullet, 93¾; 4 pullet, 93¾; 5 pullet, 92¾; 1 pen, 189.08. Special for largest display in variety scoring over 90.

Heather & Snyder, Huntsville, Mo., 2 cock, 92½; 1 hen, 94¾; 3 hen, 94½; 1 pullet, 95; 3 pullet, 93½; 2 pen, 186.93.

B. T. W. JAP. BANTAMS. Wm. H. Stephenson, Ciements, Kans., 1 hen, 924; 1 pullet, 94½; 2 pullet, 92½.

S. C. B. L. BANTAMS. Albert Lutes, Topeka, Kans., 4 cockerel, 1 pullet.

M. B. TURKEYS.

M. B. TURKEYS.

J. R. White, Salina, Kans., 2 cock yearling, 94½; 3 cock, adult, 93; 3 hen, 93; 4 hen, 92; 1 pullet, 95; 2 pullet, 95; 1 trio, 189.50; 4 trio, 185.50. Special for largest display in variety scoring over 90.

Mrs. M. J. Jardon, Baldwin, Kans., 1 cockerel, 94; 3 cockerel, 92; 3 pullet, 93½; 4 pullet, 92½; 3 trio, 187.

A. P. Chacey, Topeka, Kans., 1 cock, yearling, 96; 4 cock, adult, 83½.

Mrs. F. A. Hargrave, Richmond, Kans., 2 cock, adult, 93½; 2 cockerel, 92½; 5 hen, 90%; 5 pullet, 91½; 5 trio, 184.50.

C. H. Clark, Delphos, Kans., 1 cock, adult, 93%; 1 hen, 94½; 2 hen, 93½; 2 trio, 187.75.

WHITE HOLLAND TURKEYS.

Mrs. W. J. Smith, Smith Center, Kans., 1 cockerel, 95½; 1 pullet, 95½; 2 pullet, 94½; 1 trio.

NARRAGANSETT TURKEYS.

Mrs. M. Butterfield, Lee's Summit, Mo., 2 cockerel, 86½; 1 pullet, 91¼; 2 pullet, 91¼; 3 pullet, 90; 4 pullet, 88½. PEKIN DUCKS.

PEKIN DUCKS.

J. C. Robison, Towanda, Kans., 1 cock, 96; 1 hen, 95½; 2 hen, 95½; 1 cockerel, 96½; 2 cockerel, 96; 1 pullet, 96¾; 2 pullet, 96; 3 pullet, 96; 1 trio, 192.62; 2 trio, 191.81. Special for largest display in variety scoring over 90.

O. E. Martinson, Wichita, Kans., 2 cock, 94½; 4 pullet, 95½; 5 pullet, 95; 3 trio, 189.75.

A. L. Withers, Valley Falls, Kans., 4 cockerel, 88½; 5 trio, 179.25.

D. A. Wise, Topeka, Kans., 3 cockerel, 34½; 4 trio, 188.

TOULOUSE GEESE.

Burton & Burton, Topeka, Kans., 1

Burton & Burton, Topeka, Kans., 1 cock; 2 cock; 1 hen; 2 hen; 1 cockerel; 2 cockerel; 1 pullet; 2 pullet; 3 pullet; 4 pullet; 1, 2, and 3 trio. Special for the largest display in variety.

WHITE GUINEAS.

Paul Forbes, Topeka, Kan., 1 cock; 1 hen; 2 hen. Best incubator, Sure Hatch Incubator Co., Clay Center, Neb. Best brooder, Sure Hatch Incubator Co., Clay Center, Neb.

RHODE ISLAND REDS. W. E. Clark, N. Topeka, all premiums.

GALLOWAYS.

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Young bulls, cows, and heifers for sale.

W. THRALL, Eureka, Kans. E.



LARGEST HERD OF REGISTERED GALLOWAYS IN THE WORLD. Bulls and females, all ages for sale-no grades. Carload lots a specialty. M. R. PLATT, Kansas City, Missouri. Office at Platt's Barn, 1613 Genesce Street.

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ZEIGRA BROS.

McCune...Kansas.

Watch for announcement of their Poland-China Sale next week.



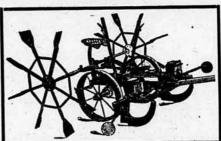
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The Cushioned Hubs on the Spacing Wheels overcome all difficulties met last season. The Lifting Arms will cause you no more trouble. The Checkrower frame is much stiffened.

Send for circular. Insist on the "Wireless." If your dealer won't order it, write to us direct. It costs you nothing to try it. It is guaranteed.

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sliver or stamps, to help pay postage, malling, packing, etc., & you will receive free a package of Electric Balm Shaving & Complexion Soap which beautifies the akin, prevents pimples, blotches & all facial eruptions, to her with our extra offer of a handsome Sheffield steel razor eractly as illustrated, accupon is received, all charges prepaid. Why we do this. Some firms spend sing in magazines; when we make an offer we mean it, knowing you will apaing in magazines; when we make an offer we mean it, knowing you will apain the sheffield steel razor free, don't delay.

NUMBER 4006

The Bome Circle.

AESOP.

He sat among the woods; he heard The sylvan merriment; he saw The pranks of butterfly and bird, The humors of the ape, the daw.

And in the lion or the frog— In all the life of moor of fen— In ass and peacock, stork and dog, He reads similitudes of men.

"Of these, from those," he cried, "we come, Our hearts, our brains descend from

And, lo, the Beasts no more were dumb, But answered out of brakes and trees:

"Not ours," they cried; "Degenerate, If ours at all," they cried again. "Ye fools, who war with God and Fate, Who strive and toil; strange race of men.

"For we are neither bond nor free, For we have neither slaves nor kings; But near to Nature's heart are we, And conscious of her secret things.

"Content are we to fall asleep
And well content to wake no more;
We do not laugh, we do not weep,
Nor look behind us and before.

"But were there cause for moan or mirth." Tis we, not you, should sigh or scorn, Oh, latest children of the Earth,
Most childish children Earth has borne."

They spoke, but that misshapen slave
Told never of the things he heard,
And unto men their portraits gave,
In likenesses of beast and bird!
—Andrew Lang.

A Man at Fifty.

The critical age in the life of a man , well preserved is certainly 50. At that age man really reaches his maturity. His mind, having spent half a century acquiring knowledge of the world ought to be in condition to do its best work. His body should be vigorous as ever and more than ever free from illness or other troubles that go with youth

At 50 a man is either hopelessly gone to the bad or he has recovered from his foolishness, got over experi-menting with folly on his own hook, as we all do, and has begun to live

the serious life that was mapped out for him in the earth's planning.

A few freaks in history have achieved their great success long before 50 and are old at that age. But of the world's great men a majority have begun to be something only 50 years after birth.

Modern life has two ways of looking at the man of 50. The successful man is the "wonderfully successful wounderfully successful wounderfully successful man is the "wonderfully successful wound too." Mr. Bryan, man, and so young, too." Mr. Bryan nearing 50, is called a "boy orator." Mr. Chamberlain, past 60, is a considerable English statesman, "considering

how young he is." The man not successful is seen at 50 in a sadly different light.

When he wants to work, there is nothing against him except that a "young man is wanted." If he seeks work as a mechanic, or on a railroad, he is afraid to take off his hat, lest the thin hair, turning gray, be noticed.

Hair dye, almost unknown now in barber shops frequented by prosperous men, is sold extensively in cheap little shops—men of 50 dye their hair to get

There is no reason why any man who has lived sensibly up to 50 should not be at his best when 50 comes. There is no reason why a man should not at 50 take a new start, if he has the mental energy and hopefulness to

The trouble with the average man past 50 is this:

He thinks he is old. He allows him-self to sink down and begins looking backward. The clasticity dies out of him, and elasticity means success in a

sword blade. of it. We hypnotize ourselves. We

then we do it. Ask a young woman to break down a certain door, and without hesitation she says that she can not do it. She thinks she can not, and therefore she can not. But let the house be burning and her child on the other side of that door. A different story may be told. She thinks she can burst open the door. She feels that she must, and will. And, hypnotized by her own will power, she performs marvels almost incredible.

So it is with men and women at all stages. While the determination and will power are there, they are young and capable of successful accomplishment, no matter what their age.

Success keeps us confident, and the successful man at 50 works well-better than ever. Lack of success weak-ens confidence in one's self, and that

the sad and unnecessary failures of many middle-aged men.

A man of middle age—if he has not wasted his force in dissipation—is as good as any younger man, and usually better. But he must believe that he is good, he must feel confidence in himself.

One good thing for a man of middle age to do is to read the lives of successful men. Read of Admiral Blake, who saved England's naval reputation, yet never went to sea in ocmmonadthr yet never went to sea in command until past middle age. Read of almost any of the world's great successes. You will find that success comes late. Of course it must come late in the natural order of things. The man who succeeds must surpass others. No matter how able he may be he must first learn what others know, and that takes time. It usually takes about 50 years. After spending about one-half of his intellectual life getting even with other men of ability, acquiring his sup-ply of knowledge, the successful man goes ahead and beats his fellows in

The great thing is not to be dis-couraged—discouragement means failure inevitable.

Another very important thing is to remember that middle age is really youth, or should be, therefore, let the man of 50 not be ashamed or hesitate to do at 50 the work that he would do at 30 or 20.

Let the middle aged man simply say to himself: "I am not old, and I'll prove it. I'll take the work that comes. I'll succeed in it better than the young man because of my steadiness, and although I am beginning now where I should have begun ten years or more back, I'll not let that fact discourage or handicap me. I'll succeed now and think of other things later on."—The Irrigation Age.

For Those Who Worry.

"You ask how I came to get rid of the worry habit," said a merry-faced woman. "Well, I always did have a woman. "Well, I always did hav prejudice against wasting time, strength, or nerves on something which doesn't amount to anything, and, after a long and elaborate experience in worrying, I found out that the things which most nearly broke my heart (in anticipation), ruined my temper, wrecked my peace, and alienated my family and friends, were, in ninety-nine cases out of a hundred, the things which never happened! As I couldn't be prepared for the real trouble, I gave all worrying the go-by, and you can not imagine what a difference it makes. Why, I am a new and delightful stranger to myself without my haunting double, worry. But he will never be admitted again, for without him my heart is not only lighter but purer. my heart is not only lighter, but purer, my head is clearer, my body is stronger and I'm twice the woman I was with him.

"There is always a black spot in our sunshine," says Carlyle; "it is the shadow of ourselves." Get out of your own light.

Many people worry because they see so much ahead to do, and consider how much strength it will require to meet

the waiting duties. "If men were called to face the work of a whole life at any moment," says an exchange, "the strongest man would fail; but because the work is divided into fragments, the weakest man, if he has courage, is able to carry the load. A stout heart, in the old sense of the words, is one of the best gifts—the temper which disposes one to be cheerful, hopeful and buoyant; which refuses to see the dark side of things, to feel the oppression of work, or to sit down under the shadow of possible Human beings are largely made by calamities. A stout heart is much more auto-hypnotism, or unmade by the lack than a cheerful disposition. It is a It is a temper born of faith that there is a believe that we can do a thing, and God, and that He is taking care of His This does not mean that He own. shields them from great sorrows, protects them from adversities, or relieves them of great labors. It does mean that He is able to turn all these great and arduous experiences into sources of strength; it does mean that the toilsome road ends in a glorious outlook; that the darkest night has its dawn, and the hardest life its beautiful and eternal consummation. Trials and la-bors, however overshadowing and severe, can come to us only a day at a time. We are not called to meet them all at once. As the manna was re-newed every morning for the need of those that were ahungered, so is the divine strength renewed every day to those who look to that strength for their support and guidance."

Others think that they might cease ens confidence in one's self, and that to be fretful and miserable if they had man, an old fellow whom I had known weakened self-confidence accounts for plenty of money. Listen to the wise for some time, was in the cage when I

TO CURE THE GRIP.

Advice of a Famous Physician.

First and foremost, REST. Take care of yourself. Your already weakened nerves want rest, and must have it. If the attack is severe, go to bed and remain there. More fatalities result from neglect of this precaution than from any other cause.

Eat sparingly. Your digestive organs are in no condition to take care of large quantities of food.

Drink plenty of pure, cold water. It allays the fever, stimulates the kidneys to action and opens up the pores of the skin. Keep the bowels open with Dr. Miles' Nerve and Liver Pills.

Take three doses of Dr. Miles' Nervine per day, and if you can not sleep take an extra dose at bed time. To further control the fever, and to overcome the peculiar aches and pains of grip, use Dr. Miles' Pain Pills. They act quickly and effectually, and no bad effects result from their use. These remedies have been thoroughly tested more than a million times, and their efficiency is thoroughly established. They never fail to give relief.

Dr. Miles' Remedies can be found at any drug store, and they are sold on a positive guarantee that first bottle or package benefits or money refunded.

Franklin on this subject: never made a man happy yet," he says. "There is nothing in its nature to produce happiness. The more a man has the more he wants. Instead of filling a vacuum, it makes one. A great bank account can never make a man rich. It is the mind that makes the body rich. No man is rich, however much money or land he may possess, who has a poor

heart."
"To worry is to throw dust into one's eyes, to tread on upward-pointing pins and needles, to annoy the breast with needless gasps and groans," says Henry Frank in the Arena. "We, as a people, are nervous, fretful, and foreboding. The reins are ever falling from our hands, while the infuriated steeds are flying with our lives. Apparitions of disaster begloom the day; horrible nightmares murder our sleep, and ghosts of forgotten sorrows stalk through the night! We are conceived in fear, and brought forth in forebodings. Our childhood is nursed in the lap of uneasiness. We are forced to begin life wrong. We are plunged at once into the midst of a tremendous battle. Each is against the other. Everywhere are weapons pointed at us which we must dodge and escape, or disgrace and defeat will follow. Life is a game of 'give and take,' every hour, every moment; and he is already slain whose back is turned."—Inter Ocean.

A Psychic Phenomenon.

"Speaking of superstitions and strange warnings that come to people," said a veteran Washington corresponnent, "I had an experience once that I hardly know how to account for. I may say in advance that I don't believe in any of the business that can not be demonstrated scientifically. One day, not a great while after the present elevator to the house press gallery had been put in, my mother sent for me to stop at her house on my way down town, as she had something particular to see me about. I went, and she asked me if there wasn't a new elevator to the press gallery. I told her one had been put in three or four months before that. She said that was it, and that I must not ride in it, for she had dreamed the night before that I had been crushed to death in it. at her, of course, and went on my way. Down on F street I met an aunt who told me she had something odd to tell me. She said she had been the day before, with a niece of her husband, to see a fortune teller, as the niece had taken a fancy to see one of those fakirs. The fortune teller, however, instead of telling the niece anything, had directed her remarks to her (my aunt) and had told her that she had a rela tive, a young nan, whom she should warn, as he would be crushed to death in an elevator. That was rather a jar to me, as I was her only young man relative, and as I had so shortly before been warned by my mother. However, I laughed at her also and went on my

way to the capitol.
"I went about the committee rooms awhile, and at last, quite forgetful of my late warnings, went to the elevator to go up to the gallery. The elevator

got there, and before opening it he talked to me through the bars.

''I don't know,' said he, 'whether I

ought to let you come in here or not.'
"'Why not?' I inquired, laughing.
"'Because,' said he, as serious as could be, 'I dreamed last night that I had run the elevator up too high and that as you started to get in you slipped some way under it, and when I got down to you at the bottom of he shaft you were smashed to death.'

"This looked like the 'fatal three warnings,' and I confess I had a few doubts myself, but I had some nerve left, and I jollied him on his notion and got in. On my way up I told him what my mother and my aunt had told me, and the old fellow was so scared that he hardly knew what to do, but I got through all right, and up to date I have not been crushed in that elevator or any other, but, of course, that's no sign I won't be, and if I ever am, the cranks will be sure to hold me up as a frightful example. I suppose there are some people who wouldn't ride in that elevator for all kinds of money, and still they may fall down stairs at any moment and break their necks."-Washington Star.

Density of Population.

The most densely populated country of the world is Egypt, there being 290 souls to one square kilometer. [A square kilometer is a little less than four-tenths-.379-of a square mile.] Next comes Belgium, with 226 inhabitants to a square kilometer, and then follow the Netherlands, with 154; Great Britain, with 128; Japan, with 114; Italy, with 115. The seventh place is occupied by Germany, with 97 souls to a suare kilometer, whereupon follow Austria, with 84; Switzerland, with 78; France, with 73; Denmark, with 60; Hungary, with 58; Servia, with 50; Roumania with 41; G. cece, with 38, Spain, with 36, and Bulgaria, with 35 inhabitants to a square kilometer.

The next countries show a great dif-

ference, as will be seen from the following figures: Sweden, with 11; the United States, with 10; Norway, with 7; Russia, with 6; Mexico, with 6; Chile, with 4; Argentina and Brazil,

with 2 souls a square kilometer.
Figures for China and India are not given, though it is estimated that in the yellow empire there are 32 inhabitants to the square kilometer, and in some provinces as many as 172 (Shantung) and 210 (Kiangsu').-Philadelphia Record.

"My heart was badly affected by an attack of grip and i suffered intense agony until I began taking Dr. Miles' Heart Cure. It made me a well man." -S. D. Holman, Irasburg, Vt.

The Ruling Passion.

The woman was made last so she wouldn't have to wait for some one to talk to.-Life.

TRAPPER'S BOOK

of 20 pages. Pictures of 46 wild animals and their skins. Prices of raw furs. All for a 2-c stamp. N. W. HIDE & FUR CO., Minneapolis, Minnesota

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Mothers! Mothers!! Mothers!!! Mothers! Mothers! I Mothers!! I Mothers!! I MRS. WINSLOW'S SOOTHING SYRUP has been used for over FIETY YEARS by MILLIONS OF MOTHERS for their CHILDREN while TRETHING, with PERFECT SUCCESS. IT SOOTHES the CHILD, SOFT-ENS the GUMS, ALLAYS all PAIN, CURES WIND COLIO, and is the best remedy for DIARRHEA. Sold by druggists in every part of the world. Be sure and ask for "Mrs. Winslow's Soothing Syrup," and take no other kind. Twenty-five cents a bottle.

The Houng Folks.

CUPID'S PICNIC.

Dan Cupid gave a picnic Once of a summer's day. And invited all the other loves To join him in his play.

There was big love and little love, And the love that files away, And naughty love and haughty love, And the love that loves alway.

And long love and strong love, And love for the happy hour, And love that loves for love alone, And love with the visage sour.

Yet the picnic proved a failure,
For the best loves stayed away—
The constant love and the tender love,
And the love that ne'er says nay.
—James S. Metcalfe, in Life.

Carmen Sylva as a Child.

The surroundings, work and personality of Elizabeth, Queen of Roumania -known to the world of letters as Carmen Sylva—are the subject matter of an article in the December Woman's Home Companion entitled "The Queen Who Writes Fairy Tales." The author, George T. B. Davis, thus writes of the childhood of the queen-author:

Her father was a man of deep learning, author of a notable philosophical work, and entertained the leading scholars of his time at his castle on the Rhine. Here she was born, in 1843, on the 20th of December, missing by only four days being a 'Christmas child.' As a child Elizabeth was a prodigy, at least in the great imagination and overflowing energy she possessed. Such a bundle of nervous energy was she that when, at the age of 5, her portrait was being painted it was almost impossible to make her sit quietly. Pleading and threats were alike unavailing. Finally the child herselw made up her mind to sit perfectly still. She succeeded for two or three minutes, but the strain upon her nervous system was too great and she fell fainting from her stool. 'Once she was taken with her mother

to visit the German Empress. The child wandered about the room fondling cushions, sofa-pillows and bolsters, pre-tending they were her children, and finally went up to the Empress, took hold of her feet, which were resting on a footstool, placed them roughly on the floor, clasped the stool to her breast, and exclaimed, 'You must not stand on

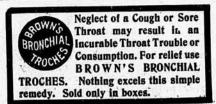
my child!' "At 9 years of age Elizabeth wrote verses; at 12 she attempted to write a novel; at 14 she arranged dramas and tragedies in her imagination; at 15 she studied three newspapers daily and took a keen interest in politics. During her youth her chief pleasures were roaming alone through the great forest surrounding the ancestral castle—and stories are still told of her daring deeds in those earlier days on the Rhine—and listening to fairy tales; or, as she grew older, weaving the tales from her own rich imagination and relating them, with eyes all aglow, to

eager troupes of children. "It was not until after the war be-tween Russia and Turkey that the Queen began to write for publication, although she had written verses secretand pasted them in a large scrap book—from early childhood. Her first book was written in a peculiar manner. One day the National Superintendent of Schools came to her and said he wanted a book to offer as a prize at the end of the year to certain Roumanian school children, and suggested that Her Majesty write one. The Queen en-tered into the plan with enthusiasm, and in three weeks had written a book of fairy tales, taking old Roumanian legends as the foundation for her stories. The volume was such a success, and creating it gave the Queen such pleasure, that she turned to writ-ing in earnest, and volume after volume has appeared bearing the name 'Carmen Sylva' on its title page. One day in each month is devoted to reading the Queen's books in the public schools of Roumania."

Beauty of Manners.

The following study from real life is given by a writer for the Sunday Inter Ocean:

The girl who thought she was beautiful entered a train on the elevated road. She was well dressed. She had



bright eyes and a good complexion. She took her seat with the sort of grace that showed that she had studied some of Delsarte's rules. She was accompanied by a young man who wore a big chrysanthemum. The girl and the man sat together on one of the seats facing forward. Passengers looked up from their papers to notice that the girl had a rich color in her cheeks.

There was a moment of silence and then the girl began to talk in a voice that reached the guard on the platform. Between every sentence she gis-gled—not in the bread-and-butter way, but after the fashion of the juvenile ingenue who plays a saucy role at the matinee. Men looked up from their papers for the second time and she met their gaze with a conscious glance. She knew she was challenging the notice of strangers, but she did not care. They talked football and the girl spoke in superlatives, while the young man employed more or less slang. Now and then, when a detached sentence floated across the aisle of the car, a youth with loud trousers would smile sociably. This caused the young man with the chrysanthemum to scowl. But the girl did not mind the impertinent attention she was receiving from strangers. She rather liked it. Indeed, she appeared not to realize that she was the object of disrespectful consideration. Before she had reached Twenty-Second street there was not a person in the car but there was not a person in the car but would have answered the question, "Isn't she pretty?" with the words, "Yes, but—" and a shrug of the shoulders.

Beauty is such an impalpable possession after all, that no one can say how much of it is spiritual and how much physical. The truly beautiful woman must have repose and reticence, dignity and reserve. It is her privilege to hide her personality from the vulgar crowds, to pass unrecognized and unnoticed among the throngs upon the city streets. There is nothing more vulgar than the desire to attract the attention of strangers. The girl who challenges in the passing glance of any man has in her that trait that will coarsen and de-grade her, for she lacks the sweet spirit of self-forgetfulness that is the heritage of the finest natures.

The woman who would be beautiful should remember that the most charming picture mey be spoiled by its frame. She should keep to mind that her character shines through her face, and is betrayed by act and gesture. There are no lotions for bad manners; no balms for unlovely dispositions. Moral defects can not be cured in a day, and the beauty-seekers must bear in mind the importance of watching the soul as well as the body.

Candid Young People.

"In my day," said an elderly woman recently, "while poverty wasn't considered a crime any more than it is now, it was a subject carefully kept in the background.

"If one had to darn her stockings, it was done in the secrecy of her bedroom. If a dress had to be turned or a bonnet retrimmed, these processes were never spoken of outside of the family circle, and whatever skimping the mistress of the mansion did to keep down household expenses was a secret between herself and her cook.

"It wasn't that the family dignity could have been lowered by the public's knowing that there was a lack of funds; it was that it was none of the public's business. The public might be all that Mr. Vanderbilt wished it, but it had no concern in the expendibut it had no concern in the expenditures to which the gentlefolks were sometimes forced to make ends meet.

"That was thirty years ago or more, and I remember still weeping bitterly once because an envious cousin told some of our playmates that my new silk frock was made out of Aunt Lucy's dinner gown of the winter before. Things are so different now that I'm sometimes shocked. •
"Only yesterday I heard a girl say

when my granddaughter exclaimed at the beauty of some new furs the lat-ter wore, '* * *, they were given ter wore, '* * *, they were given to me. You know very well we could not afford to buy sables, poor as we

"And my grandchild replied, "I wish to goodness some of my relatives would give me some new rags. Job's turkey wasn't any more poverty-stricken than

I am.' 'Another young woman in the group declared, 'Well, I am going to have a new hat this winter if I don't get anything else the rest of the year. My old one is positively disgraceful. It's been made over so often.'

"These were all young women, whose parents are in comfortable circum-

GRIP IS EPIDEMIC.

Grip is everywhere. The papers tell us there are two million Americans now suffering with "grip" (or La Grippe, as the doctors call it) and what is worse it is more violent in its character than in the past, as a much greater percentage of victims are dying from its effects. Grip attacks the old and the young, the hard workers and the people of leisure, the rich and the poor, everybody in fact, whose system is not in perfect order. If the bowels are constipated or irregular, if the kidneys are ailing, the blood impure, the liver torpid, the digestion weak or disordered, it produces a condition very favorable to "grip," and such people are its victims. A little care will render the body proof against attack; that is to say, the impurities in blood, liver and bowels can be driven out through the use of Prickly Ash Bitters, the great remedy for cleansing and regulating the system. This splendid remedy purifies the bowels, strengthens the kidneys, renovates the liver and blood and tones up the digestive organs. In short, it prevents "grip" by putting the system in good condition. And as a help, in cases where the disease has already fast-ened itself on the body, there is nothing better. It flushes the sewers of the body and stimulates the vital organs so that nature is assisted to more quickly throw off the disease. Sold at Drug Stores.

stances, but they seemed to delight in giving their hearers the impression that they were in imminent danger of going to the almshouse. This pose, if it is a pose, isn't confined to the gentler sex, but extends to the men.
"'If I didn't owe my tailor such a pot

of money, I'd keep you in violets this winter,' one lord of creation remarked to a young lady he had recently met in my hearing, not long since. 'Tell you what I'll do,' he continued, 'if I make some cash on a deal I've gone into, I'll send you a thousand for the first german. If I don't you won't get so much as a rosebud, for I will be down on my luck then for fair.'

"Give me the days again when the condition of one's purse wasn't public property, and when there was more reserve in speaking about private af-fairs. This way of talking gives a very ingenuous air to the speaker, but I'd like her better if she continued to darn her stockings in the secrecy of her bedroom and spend her last five cents for car fare with the air of one who has the mines of Golconda at her back."—Baltimore News.

Tent Life on the Desert.

Dr. Craig writes of the climate of Arizona for various diseases and sums up his conclusions that it is in pulmonary diseases that the best results are obtained. The method pursued by the more modern sanitarium at present, particularly in Germany and at Davos Switzerland, is to give the tubercular patient as nearly as possible an absolute outdoor existence. There is no place in America where this end can be attained with greater success than in the Salt River Valley, Arizona.

Undoubtedly the best results are being secured by a tent life on the desert at the foothills which extend to within 10 miles of Phenix. Indeed, many people of the secure ple sleep in the open air all winter, although it is not so common a practice as it should be when carried out under intelligent directions.

Good horses are numerous and cheap and there are plenty of vaqueros (cow-boys—the genuine article) to show what horses can be made to do.

The roads for 15 or 20 miles on either side of Phœnix are good. The desert itself is as easy to drive over as the average eastern roadway, and the whole valley is a paradise for bicyclists and horsemen.

While the Salt River Valley is mate par excellence for the relief of pulmonary tuberculosis, there are many other diseased conditions that do well there. Asthmatic patients usually re-ceive prompt relief and are permanently cured. Bronchitis and laryngitis disapear as if by magic, the dry, warm air acting as a most effectual stimulant to the mucous membrane of the respiratory tract.

Rheumatic affections are generally much improved during the winter, but it is in the summer that the best results are attained, as the constant perspiration, maintained for months, has a greater eliminative effect than a sojourn at the most famous springs. The perfect rest and relaxation that tired nerves experience in this balmy air act almost as a specific for nervous prostration and insomnia, as well as affording a new lease of life to the consumptive.

It is folly, however, for those just

Cash For Your Farm may be obtained through me. No matter where located. Send description and selling price and learn my plan. W. M. Ostrander, 1215 Filbert St., Phila., Pa.

ready to die to go there. It is in the earlier stages that the best results are secured.—Health Magazine.

Recoveries from Grip.

Mrs. E. I. Masters, at her home in Monitor, Ind., used Dr. Miles' Nervine and Pills to cure after effects of grip.

Mrs. A. E. Lopeer, in the little town of Modelia, Minn., used Dr. Miles' Pain Pills and Nerve and Liver Pills and was well in a few days.

President McKinley is slowly recovering from grip and its after effects.

George J. Flannery was relieved of the awful pains in his head in fifteen minutes, by the use of Dr. Miles' Pain Pills. Now he is rapidly recovering at his home in Buffalo, N. Y.

Speaker Henderson is again in his chair in the House of Representatives after a severe attack of the grip.

J. C. Helfrey, foreman of the Westing-house factory in East Pittsburg, had a severe attack of grip, but he used Dr. Miles' Nervine and Pain Pills and was soon back in his place.

Rev. C. Body was in a serous condi-tion at his home in St. Paris, Ohio, but Dr. Miles' Nervine and Nerve and Liver Pills pulled him through all right.

The Savages.

"What are aborigines, pa?" "Aborigines, Bobby, are people who act all the time the way you do when we have company."—Chicago Record.

Aching in the small of the back is an indication of Bright's Disease. The proper course in such cases is to take a few doses of Prickly Ash Bitters. It is an effective kidney remedy and bowel regulator.

"After suffering for two months from a severe attack of grip I found quick relief and a lasting cure by using Dr. Miles' Nervine, Pain Pills and Heart Cure."—Harry Abbott, Cincinnati, Ohio.

NO SPAVINS

The worst possible spavin can be cured in 45 minutes. Curbs, splints and ringbones just as quick. Not painful and never has failed. Detailed information about this new method sent free to horse owners. Write today. Ask for pamphlet No. 12. FLEMING BROS., Union Stock Yards, Chicago, III

PARALYSIS Locomotor Ataxia conmassed at recovery of patients thought incurable, by
BR. CHASE'S BLOOD AND NERVE FOOD.
Write me about your case. Advice and proof of cure Write me about your case. Advice and proof of ourse FREE. DR. CHASE, 224 N. 10th St., PMLABELPHIA, PA.

GREAT NEW CENTURY OFFER OF EMPORIA BUSINESS COLLEGE.

Write at once for our "New Century" offer, and mention this notice.

This College stands at the head for thorough work, broad courses, small cost, popularity, and great sucess of its graduates. This notice is worth \$50 in gold to you, if you can enter college before March 1, 1901. Address.... C. E. D. PARKER, President, Emporia, Kanse

KANSAS FARMER.

Established in 1863.

Published every Thursday by the					
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Annual cards in the Breeders' Directory, consisting of four lines or less, for \$16.00 per year including a copy of the Kan ass 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.

references are given.
All advertising intended for the current weel 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., 116 W. Sixth Ave., Topeka, Kans.

NOTICE EXTRAORDINARY. BLOCKS OF TWO.

The regular subscription price for the KANSAS FARMER is one dollar a year. That it is worth the money is attested by the fact that thousands have for many years been paying the price and found it profitable. But the publishers have determined to make it possible to secure the paper at half price. While the subscription price will remain at one dollar a year and no single subscription will be entered for less than this price, every old subscriber is authorized to send his own renewal for one year and one new subscription for one year with one dollar to pay for both. In like manner two new subscribers will be entered, both for one year for one dollar. Come, let us immediately double the circulation of the "old reliable" KANSAS FARMER. Address, Kansas Farmer Company, Topeka, Kans.

We want a good reliable man or woman in every county to act as local agent for the Kansas Farmer. We offer a good proposition to the right parties. In answering please give some one as reference and also state how much time each week you can give to the work. Address

THE KANSAS FARMER, Topeka, Kansas.

Victoria, queen of England and empress of India, died last Tuesday evening in the eighty-second year of her age and in the sixty-fourth year of her reign. She lived longer and reigned longer than any other sovereign of England. She was succeeded by her son, formerly Prince of Wales, now Edward VII.

Announcements are out for the fourth annual meeting of the Central Shorthorn Breeders' Association of America, to be held at assembly hall, in the Kansas City live stock exchange building, on Tuesday and Wednesday, January 29 and 30, 1901. The meetings will open at 10 a. m. on Tuesday. In-vite your friends to attend this meet-

Official state statistics on the crops in Indiana show that the 1900 wheat crop was 7,840,000 bushels, the smallest yield for many years. The acreage sown in the fall of 1899 was 2,674,000 acres, of which only 974,000 were harvested. A full crop in Indiana is over 40,000,000 bushels. That of 1899 was 25,000,000 and of 1898 38,000,000 bushels. The corn yield of 1900 was 170, 000,000 bushels, the largest ever known. The corn crop of 1899 was 142,000,000, and in 1898 was 129,000,000 bushels.

The final report for 1900 of the Iowa crop and weather bureau shows that the wheat crop was 21,200,000 bushels, valued at \$12,799,371; oats, 138,832,340 bushels, valued at \$27,966,466; rye, 1, 621,000 bushels, valued at \$697,000; barley, 12,694,260 bushels, at \$4,188,000; flax 1,222,000 bushels, at \$1,834,000. The corn crop was the largest in the history of the state, 345,055,000 bushels, valued at \$93,164,000. Hay was an im-

portant item, amounting to 4,139,000 tons, which brought \$31,100,815, the largest of any crop aside from corn.

Even though the KANSAS FARMER IS mailed by machinery, which seldom makes a mistake, yet it does occasionally occur that a subscriber fails to receive his paper. In such cases the publishers should be notified by postal card. Usually the missing number can be supplied. If several numbers are missed it is reasonably certain that some mistake has occured in the mail list. If notified the mailing department can remedy all such difficulties. We want every subscriber to have every number of the paper. It is often the case, that a single number contains matter worth more than the entire cost of a year's subscription, and the missing number is just as likely to be this val-uable number as any other. Always notify the publishers if you miss a paper.

HARD WHEAT SCARCE.

During the early fall there was much controversy, which resulted in proving pretty conclusively that, while they de-nied it vehemently, the Minneapolis millers were using large quantities of Kansas hard winter wheat in producing their best flours. This same hard winter wheat has come into great demand as an article of export. Recently exporters have experienced difficulty in obtaining desired supplies of this Kan-sas wheat, and a large concern in New York sent an expert to ascertain why more of this very desirable wheat was not obtainable. This investigator found that at Kansas City, whatever wheat was offered found ready buyers, "especially from Minneapolis and Duluth." He found also that sales were made at an average of 2½ cents per bushel higher than exporters could afford to pay for the same wheat if they expected to ship it out through any of the Gulf ports. His report goes on to say that little attention was paid to fluctuations in the option market, and that while during his stay in Chicago op-tions declined steadily, the prices for cash wheat at Kansas City remained entirely unchanged.

This is a point in which the superiority of Kansas wheat placed it above the manipulations of the grain gamblers. It is the very acme of farming; to produce an article of such excellence that it makes its own market.

It is noted that the home milling demand for Kansas wheat has wonderfully increased during the last few years, owing to a large number of new mills which have lately been built in the state.

The general tenor of the report is to the effect that Kansas hard winter wheat is a very desirable article, but difficult to obtain and tnat good wheat is generally scarce, that the facts of the case are well understood by holders, and that confidence in future prices of wheat is general.

THE TWELFTH BIENNIAL.

Secretary Coburn has again made Kansas proud by issuing another of his remarkably valuable publications. This time it is the twelfth biennial report of the Kansas State Board of Agriculture, a volume of 957 pages.

The first 670 pages of this handsomely made volume, with 180 illustrations, are given to the promotion of improved animal and farm husbandry, under conditions the Kansas stockman and the Kansas farmer find ready-made or can make in their surroundings; to the furtherance of the dairy interests, through a higher appreciation of the cow, and her better management; and to encouraging the most improved systems of road-making. The succeeding 300 pages tell in careful detail the story of every township's achievements, annually, in the growing of each profitably important crop, its acreage and yield, and its value where produced; the number and value, by counties of each class of live stock in each year; the mortality of live stock; the value of animals slaughtered or sold for slaughter, and of poultry and eggs sold; the population of each township and municipality; the assessed valuation of all lands, personal property, city lots, and railroads; the date of organization of each county; its area, rank in population, and miles main-track railroad.

The biennial period with which the volume deals has been agriculturally by far the most profitably productive of any in the state's history, and the percentages of increase in values of products from Kansas' soil, not alone in this period, but on an average for all the years mentioned, are so gratifying

capabilities, and showing such results from developments as yet little more than begun.

When it is considered that the state consists of more than fifty million acres of land, practically all arable and fer-tile—a country 61 per cent wider in extent than England, two and onehalf times greater than Ireland, nearly three times larger than Scotland, ten times greater in area than Wales, and in the most favored zone—and but a fraction of this utilized except in a limited way, and none of it nearly to its possibilities, it is patent that no prophet not inspired can foretell the riches in store for those fortunates who in the years to come shall possess a heritage so fruitful.

With her present progress, prosperity, and citizenship, and the bright future of which her many advantages give unquestionable assurance, Kansas certainly occupying a most enviable po-

sition in the sisterhood of states.

The following tables show by contrast the home values of the farm prod-ucts of Kansas, also the values of live stock in each of the biennial periods for the past twenty four years, together with the aggregate increase (or decrease) in values and the per cent of increase or decrease in each of the same periods:

Biennial periods	Value	Increase	Pr cent incre'se
1877-1878 1879-1880 1881-1882 1881-1882 1883-1884 1885-1886 1887-1898 1891-1892 1891-1892 1893-1894 1895-1896 1897-1898	\$129,661,731 151,012,448 254,059,450 259,584,931 247,557,157 258,181,550 268,179,141 334,459,797 225,926,448 244,793,795 288,259,096 357,644,693	\$ 21,350,717 103,047,002 35,526,481 *42,027,174 10,623,793 9,997,591 66,280,656 *98,632,249 8,867,347 43,465,301 69,385,597	16.46 68.23 13.98 *14.51 4.29 3.87 24.71 *29.49 3.75 17.75 24.07

VALUES OF LIVE STOCK

Biennial periods	Value	Increase	Pr cent incre'se	
1879-1880 1881-1882 1883-1884 1885-1886	\$116,609,453 153,680,539 220,184,938 247,631,335	37,071,086 66,504,399 27,446,397	31.79 43.27 12.46	
1887-1888	258,388,820	10,757,485	4.34	
1889-1890	229,724,807	*28,664,013	*11.09	
1891-1892	226,699,092	*3.025,715	*1.32	
1893-1894	177,005,422	*49,693,367	*21.92	
1895-1896	146,505,158	*30,500,264	*17.23	
1897-1898	207,302,818	60,797,660	41.49	
1899-1900	276,514,845	69,212,027	33.38	

PURE-BRED STOCK FOR THE AGRI-CULTURAL COLLEGE.

Farming is the original source from which is produced nearly all the wealth of Kansas. Our mines yield an interesting item of revenue not to be despised but rather to be cultivated and developed. But compared with the dollars received for Kansas farm products all other sources of income are small. The labor, energy, and intelligence applied to the farms determine, in a large degree, the wealth and welfare of the state. The figure to be ascribed to the item of intelligence as an element in farm production may not be definitely determined, but no well informed per-son will deny that it is large. This item of intelligence is dependent upon instruction. The state of Kansas has undertaken to provide higher instruc-tion in the branches of knowledge useful to farmers in increasing the value ful to farmers in increasing the value of their output. The attendance at the agricultural college is increasing rapidly, so rapidly that the state is kept pretty busy providing equipment sufficient for the proper illustration of the various scientific and practical branches of instruction required. The Kansas agricultural college is the larg-est institution of its kind in the world, in point of attendance. Its equipment,

The need of pure-bred animals for use in illustration before the classes of the college has received substantial recognition by some of the stock breeders of the state in the presentation of four of the finest pure-bred cattle in as many herds in the state. In presenting one of the most valuable of these the donors stated to the college authorities that they did not want her considered as a present, because they had received beneficial information from the college to the full value of the animal.

But the young farmers who seek in-struction at the Kansas college are entitled to as ample opportunities as are furnished by any state. For these the legislature alone can provide. The investment necessary to secure pure-bred animals of every kind and of every prominent breed need not be large,

LIVE STOCK MEN SELECT CHI-CAGO

It was decided last Friday at the meeting of the National Live Stock Association at Salt Lake City to hold its next meeting in Chicago during the International Live Stock Exposition. Omaha wanted the meeting, but Chicago was given a unanimous vote.

According to live stock men the selection of Chicago means that the greatest stock association in the world, embracing in its membership 126 organizations and representing an investment of \$600,000,000, will cooperate with the International Live Stock Exposition for the two-fold purpose of en-couraging increased and improved production of animals for breeding, slaughter, and draft purposes, and of making known to the markets of the world and impressing upon consumers everywhere the superior excellence, healthfulness and abundance of Ameri-ca's surplus of animals and meats. "This means expansion of the live

stock industry at home and abroad as never before," said a live stock man. "It means, through the power of larger organization and wider cooperation, increased efficiency in establishing a higher standard of quality and greater abundance in production, greater consumption at home and abroad, better legislation for the protection of all in-ertests involved in the industry, more successful meeting of foreign competition, and the overcoming of foreign opposition, not only through superior excellence in our animals and meat products, but also through the inducement of wise measures of reciprocity in trade with foreign nations.

'From now on the foreign outlet for America's surplus animals and meats will become more and more a prominent factor in our live stock markets, and everything that will contribute to the growth and expansion of this trade should receive the utmost attention. The value to our live stock interests of the coming exposition and convention is almost beyond computation, as it must result in a vastly increased demand abroad for American animals and

A delegation of Chicago men went to Salt Lake City in a special car, and put up a strong fight for the convention.
Omaha, Kansas City, St. Louis and St.
Joseph worked for it, but the suggestion of combining the meeting and Exposition won for Chicago. Packers and stockmen say this assures the largest gathering of live stock men ever held.

A FEEDING INVESTIGATION.

Prof. R. W. Clothier, assistant in chemistry at the Kansas State Agricultural College, is getting out a report upon the best methods of fattening steers in Kansas. He is distributing among the best feeders of the state 1,000 blank reports, which ask for in-formation upon the lot or lots of steers hat have made the best gains in the experience of the feeders. The report calls for information upon the following points: Number of steers fed, ing points: Number of steers fed, kinds of steers, age, length and date of feeding period, weight at beginning and end of feeding period, average gains made, kind of shelter used; also the amount of each kind of grain consumed and the amount of each kind of rough feed consumed. Each blank provides for reports upon eight lots of steers, and although it is not expected that every feeder will report upon so many lots it is to be hoped that many will be able to do so.

When the reports come in the amount of digestible protein carbohydrates and fat consumed in each ration not too great in any particular, is singularly deficient in the matter of pure-bred live stock. This deficiency has resulted in part from the necessity of light upon the practicability of these standards and if every man reports the greatest gains he has every man reports. upon the greatest gains he has ever obtained, it will be readily seen that one thousand such reports classified and put into available form will be of almost infinite value to the feeders of the state. It is to be hoped that every feeder to whom Mr. Clothier applies will assist him in the work by making as complete reports as possible. Any feeders who have made exceptionally good gains will confer a favor upon Mr. Clothier by writing to him and asking for a blank report.

> Constipation leads to liver trouble, and torpid liver to Bright's Disease. Prickly Ash Bitters is a certain cure at any stage of the disorder.

"I had grip thre'; months; could not sleep; pain all over and headache very bad. Dr. Mile-' Nervine, Pain Pills and Liver Pills made me well."—Mrs. E. C. Bowlby, Waterloo, Ind.

The Beterinarian.

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 give the inquirer's postoffice, should be signed with his full name, and should be addressed to the Veterinary Department, Kansas Farmer, Topeka, Kans.

Hydrophobia.—I had an extra good colt, and the first I noticed anything wrong with him was when he came to the tank to drink. He drank, stood there awhile, and ran out on the wheat pasture (where he has been all winter) and commenced to neigh. I noticed him for a while and concluded nothing was wrong, but in a few moments he was rolling vehemently. I brought him to the barn, where he seemed to get worse; would bite himself first on one side then the other, also the other borses, and the wood manger; he would fall and kick violently, and get up to do the same over again; was bleeding at the nose some. He died in not over an hour and a half from the time he was at the tank. Is it possible for a horse to drink too much ice water? It was an extra good colt, and J. L. JANES. in fine shape. Viola, Kans.

Answer.—Your colt had a well marked case of hydrophobia. There has probably been a mad dog in your neighborhood some time during the summer, and it would be well to keep a close watch of your large stock and tie them up safe if any should show any symptoms, as they are sometimes very dangerous.

Mammitis.—I have a young heifer which has been fresh about two months and most of the time she has given bloody milk; sometimes it is very bad. Can you suggest through your columns the cause and a remedy?

Bloomington, Ill. Young FARMER.
Answer.—It is usually caused by a slight congestion and inflammation. Hand-rub well twice a day with cam-phor and lard. Milk her three times a cay or let her raise a calf.

Nerving as a Preventive of Blackleg. Can we not have an explanation by the Kansas Farmer veterinarian about nerving young cattle for blackleg? I never lost a calf or yearling from black-leg after nerving, but I do not under-

tand why nerving is a preventive.

Cambridge, Kans. Chas. Utter.

Answer.—We can not see where that operation would prevent the disease.

It would not affect the nervous system is the prevent to have it and it. if they were going to have it, and it could do more than the simple wound in question in preventing the disease. Probably all those that have been operated on would have escaped anyway.

Rheumatism.—I have a 5-year-old roan cow that will be fresh the 20th of this month. About two months ago I noticed that she was apparently lame in one of her hind legs, but could not find out which one. Later on the lameness seemed to be in both hind legs, but I could not locate the soreness. But now the lameness seems like it is in her loins. She stands humped up all the time and walks the same way She shuffles or rather drags her hind feet as she walks. She eats and drinks as hearty as ever but has lost some flesh. She hasn't had any cane, Kaffircorn or millet, but I feed her wheat and barley straw at night, and she runs on buffalo-grass during the day. I first gave her salts, but am now giving her saltpeter and sulphur. But neither did J. H. CHINN. her any good.

McDonald, Kans. Answer.—Give her two pounds epsom salts in a quart of hot water at once. Give one drachm of salicylate of soda in a teacup of water twice a day for ten days. Feed bran and alfalfa hay or prairie hay. Give her a good warm stable with plenty of bedding.

Catarrh Cannot Be Cured with LOCAL APPLICATIONS, as they cannot reach the seat of the disease. Catarrh is a blood or constitutional disease, and in order to cure it you must take internal remedies. Hall's Catarrh Cure is taken internally and acts directly on the blood and mucous surfaces. Hall's Catarrh Cure is not a quack medicine. It was prescribed by one of the best physicians in this country for years, and is a regular prescription. It is composed of the best tonics known, combined with the best blood purifiers, acting directly on the mucous surfaces. The perfect combination of the two ingredients is what

produces such wonderful results in curing Catarrh. Send for testimonials, free

F. J. CHENEY & Co., Props., Toledo, O. Sold by druggists, price 75c. Halls's Family Pills are the best.

Rables for Prairie Dogs.

EDITOR KANSAS FARMER:-The Kansas City papers report this morning that a bill was introduced in the legislature at Topeka having for its purpose the extermination of prairie dogs. This news item brings to my mind a suggestion which I was about to write you three months ago, when I frequently heard complaints relative to the ravages wrought by the prairie dogs in the pastures. Not being a farmer, I hesitated to write you touching this mat-ter; but it is barely possible the suggestion has some value, so I send it.

It seems to me that it would be an easy matter to introduce hydrophobia into a "dog town," and that a prairie dog with the rabies would quickly spread the contagion, to the dismay of the dogs and the delight of the cattle-man. It might be necessary to remove the cattle from the vicinity of the "dog town" till after the war. The close of the war might be hastened by shooting the dogs or clubbing them when they have lost their self-control and timidity.

GEORGI: R. KIRKPATRICK. La Harpe, Kans.

Personals.

Mrs. E. P. Green has recovered from an attack of the grip at Canaseraga, N. Y., by the use of Dr. Miles' Pain Pills.

Among the victims of the grip epidemic now so prevalent, F. Coyle is now recovering at Canton, Ohio, by the use of Dr. Miles' Nervine and Pills.

W. E. Nihells, of St. Louis, Mo., who was down with grip, is reported much improved. He used Dr. Miles' Nervine

The frends of Mrs. L. Denison will be pleased to learn of her recovery from grip, at her home in Bay City, Mich., through the use of Dr. Miles' Nervine and Pills.

Everybody says that J. W. Udy is looking splendid since his recovery from the grip at his home in Des Moines, Iowa. They all know that Dr. Miles' Nervine was what cured him.

Prosecuting Attorney, Charles L. De-Waele, who has passed the three-score mile stone, had a time with the grip; but when seen at him home in Roscommon, Mich., the other day, he said Dr. Miles' Nervine was what cured him.

At nearly three score and ten Mrs. Galen Humphrey was fighting against odds when the grip attacked her; but she took Dr. Miles' Nervine, and now her neighbors in Wareham, Mass., remark on how well she is looking.

After an illness of five weeks from the grip, Mrs. Harriett Jackson is again about and looking fine. She began taking Dr. Miles' Nervine after the fourth week. Her home is in Bowling Green,

The Improved Quaker City Grinding Mill.

Mill.

The old adage that "wilful waste makes woeful want" is just as true to-day as it was when spoken long years ago. I know of no place where this truism will apply with so much force as in the feeding of live stock. In most sections of the country it is still the practice to allow the hogs and cattle to shell and grind the corn they eat, with the resulting great loss in both grain and animal energy, which had much better be devoted to lying around and getting fat and ready for the market. The careful man, the reading, thinking fellow, that always tops the mar-



ket, because of fine finish, knows better than this. He grinds his feed, and thereby not only saves in feed, but derives a much greater value from the grain he does feed. Among the many good machines now on the market for grinding grain for stock purposes, we know of none which stands out more prominently than this Improved

Quaker City Grinding Mill. It is manufactured by A. W. Straub & Co., of Philadelphia, Pa., and is handled in the West by the A. W. Straub Co., of Chicago, Ill.

The Quaker City mills are so well and favorably known, having been upon the market since 1867, that they leave practically nothing to be desired in machinery of this class. They are made of the best procurable material in a most superior manner. They crush and grind ear corn alone, or mix other grain with it at the same time. The reduction in very gradual, easy and thorough. Small grain hopper is equipped with automatic Shaker Feed, which insures evenness of the resulting meal or feed. They are easy to adjust and regulate, and in grinding shelled corn alone can be set so as to produce the finest family meal. It will pay any intending purchaser to look into the merits of these mills before buying. Write to the nearest office for catalogue, circulars, prices, etc. Kindly say that you saw this article in the Kansas Farmer.

The Page Company Doing Business in Their Own Name Again.

Their Own Name Again.

The friends of the Page Woven Wire Fence Co., of Adrian, Mich, who have stood by that company so nobly in their temporary financial embarrassment, will learn with great satisfaction of the company's being recapitalized at \$1,000,000, every dollar paid in, and every share sold. The receivers have been discharged, and the company is again in possession of its entire property which includes the steel, rod and wire mills at Monessen, Pa., and its original Adrian plant.

The management is not materially changed. The capacity for weaving fence will be quite largely increased, and they are in hopes to be able to supply the spring's demand as fast as it is called for. They tell us that every spring they have run short of fencing and have been unable to supply some of their customers.

It seems as though the farmers and stockmen were really standing by them in their endeavor to furnish a fence not made by a trust.

One of the officers of the company states

stockmen were really standing by them in their endeavor to furnish a fence not made by a trust.

One of the officers of the company states it this way: "People who have never bought before are buying now, and those who have bought before are buying more. Our sales in November, 1900, exceeded those of November, 1899, by 254 miles, and sales for December, 1890, exceeded those of December, 1899, by 473 miles, and the sales so far in January are not falling off."

This company are and have been heavy advertisers, and their product is known in every hamlet in the United States where the agricultural press circulates, and they are receiving the congratulations of the agriculturists from all directions.—From The Telegram, Adrian, Mich., January 17, 1901.

that the popular Pan-American Exposition Route this summer will be the Nickel Plate Road, the shortest line between Chicago and intermediate points and Buffalo. No excess fare is charged on any of its Peerless Trio of fast express thains and American Club meals ranging in price from 35 cents to \$1 are served in all its dining cars. Palatial through vestibuled sleeping cars and modern day coaches with uniformed colored porters in attendance on the wants of passengers. The acme of comfort and convenience in traveling is attained through the superb service and competent equipment found on the Nickel Plate Road. Write, wire, 'phone, or call on John Y. Calahan, General Agent, 111 Adams St., Chicago, Ill.

Business opportunities on the line of the Chicago Great Western Railway in Illinois, Iowa, Minnesota, and Missouri. First-class openings in growing towns for all kinds of business and for manufacturing. Our list includes locations for blacksmiths, doctors, dress-makers, furniture, grain and live stock buyers, general merchandise, hardware, harness, tailors, cold storage, creameries, and canning factories. Write fully in regard to your requirements so that we may advise you intelligently. Address W. J. Reed, industrial agent, C. G. W. Ry., 601 Endicott Bldg., St. Paul, Minn.

The Popular Buffalo Route

this summer on account of the 1901 Pan-American Exposition will be the Nickel Plate Road. Countless thousands will visit this one of the greatest expositions of modern times. The Nickel Plate Road will be the popular line. The excellence of its service is well recognized by the traveling public, and the reputation of its train employes in their uniform courtesy



The Young Man in Politics

By Grover Cleveland

Former President of the U. S.

IN THIS WEEK'S (JAN. 26) NUMBER OF

THE SATURDAY EUENING POST OF PHILADELPHIA

A handsomely illustrated and printed weekly magazine, with a circulation of 300,000 copies. Established 1728.

Other features this week are: "How Other features this week are: "How Our Congressmen Live," "How William of Germany Spent a Day in Paris Incog.," "Letters from a Congressman's Wife" (Delightful Gossip of real life in Washington), "Publick Occurrences," "Men and Women of the Hour," Three Good Stories and Numerous Special Articles.

THE SATURDAY EVENING POST mailed to any address Three Months (13 weeks) on receipt of ONLY 25c. Also, two little books: "The Young Man and the World" and "The Making of a Merchant," ALL for Only 25c.

We will pay well for Good Agents The Curtis Publishing Company, Philadelphia, ca.

to passengers is well known. When you go East see that your tickets read via the Nickel Plate Road. Write, wire, 'phone, or call on John Y. Calahan, General Agent, 111 Adams St., Chicago, Ill.

CHOICE ALFALFA HONEY.

Two cans, 120 lbs. net, whitest \$9, slightly tinted, part from other bloom, \$8.40. Also smaller sizes; prices on application. Reference Kansas Farmer Company. Address, Arkansas Valley Apiaries, Oliver Foster, proprietor, Las Animas, Bent County. Colorado.

"It amuses me to hear Hopperdyke say he is a man of few words."

"Well, he is; but he can talk you to death with the few that he does know." -Chicago Tribune.

When the grip left me my nerves and heart were badly affected; but I began taking Dr. Miles' Nervine and Heart Cure and was soon all right."-Wm. Roericht, Eau Claire, Wis.

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HEADQUARTERS KANSAS STOCKMEN.

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1200 Park St., Bloomington, Illinois.

That has won four-fifths of first and sweepstakes at Nebraska State and District Fairs for the past seventeen years. At 1900 Nebraska State Fair we won first and second prizes for best large yellow corn; first and sec-

ond best large white; first and second largest ears any variety or strain. ... For prize list or samples, address (Washington County.) M. H. SMITH & SON, De Soto, Nebraska.

"Pride of Nishna," Yellow, "lowa Silver Mine," White.

"PRIDE OF NISHNA" is a bright yellow dent, 16 to 24 rows, deep grain solidly set on small red cob, maturing soundly in 90 days. It was grown in 38 states in 1900. Thousands of farmers grew from 80 to 100 and 120 bushels of shelled corn per acre in all parts of the corn belt. "IOWA SILVER MINE" white, is the full counterpart of it, with white cob Price for either variety \$1.00 per bushel, bags free aboard the cars here: FULL descriptive catalogue FREE for the asking.

A 56-page Illustrated catalogue, and "BOOK ON CORN GROWING" with samples of seed for TWO A 56-page interfaced character with the page interface of the page

Borticulture.

KANSAS STATE HORTICULTURAL SOCIETY.

The following are excerpts from some of lack of space:

Self-Sterile Fruits.

EXCERPTS FROM A PAPER BY A. S. HITCH-COCK, MANHATTAN.

As a member of the committee on botany and vegetable physiology, I wish to call the attention of the society to the subject of self-sterility in orchard and small fruits. Although the fact has been known by fruit growers for a long time that certain varieties when planted alone, or certain trees when isolated, refused to bear fruit, yet it is only recently that the reason for this has been established. This subject is not a new one to the members of the society, but nevertheless a brief review of the subject may be of in-

In order to understand the principle involved it is necessary to recall to mind the structure of the typical flower. That of a peach will serve as an example. There are four series of organs composing the flower; the calyx on the outside for protection; the corolla made up in this case of five showy petals, for the purpose of attracting in sects; the stamens, which furnish pol-len; and in the center the pistil, which contains the ovules. The two ovules, only one of which matures, are con tained in the lower part of the pistil. At the top of the pistil is the stigma, a sticky surface for the reception of the pollen. The production of seed, and in most plants also the production of fruit, depends upon the fertilization of the ovules. This is accomplished as follows: The pollen, which consists of minute grains, is transferred from the anthers, or top part of the stamens to the stigma. This transfer may be brought about by the agency of the wind, as in corn, willow, cottonwood, and pine; or it may be carried unconsciously by insects which visit the sciously by insects which visit the flower for nectar; or it may fall directly upon the stigma of the same flower. as in close-fertilized flowers, of which wheat would be an example. We are at present interested chiefly in the second category, to which our peach flower belongs. The flower secretes nectar solely for the purpose of in-ducing insects to visit it, but the parts are so arranged that the insects in obtaining the nectar brush some part of their bodies against the anthers, and then when entering another flower the same part is brought in contact with the stigma. Soon after depositing the grains of pollen germinate by sending out from the under side a tube which penetrates between the cells of the stigma and style and down into the ovary where are placed the ovules. Finally the end of the tube comes in contact with the opening in the end of the ovule. It crowds its way into this until it reaches the egg-cell situated just below this opening. Then a portion of the contents of the polien tube passes over into the egg-cell and the latter is said to be fertilized. The fertilization stimulates this egg-cell to renewed growth, and within it is developed a small plant, the embryo. After a while the growth is suspended and we have the seed. One pollen grain will fertilize one ovule and only one. Hence there must be as many pollen grains as there are ovules. Usually grains as there are ovules. Usually there are many more grains deposited and pollen tubes formed than are necessary, in order to guard against accident and insure fertilization by the

most vigorous pollen.

Without going into historical or structural details, I may say that it has been proven experimentally, first by Charles Darwin and later by others that most species of plants produce a more vigorous growth when cross-fertilized than when self-fertilized. In some species of plants, (how many

we do not at present know) a preserence for foreign pollen is carried to an extreme and the plant will not accept its own pollen. Such plants can not be fertilized unless they receive pollen from a separate individual. They

CANDY CATHARTIC

are known as self-sterile plants and the condition is known as self-sterility. But what is foreign pollen and what is a different individual?

So far as its bearing on this question is concerned it seems that an individual, to be different, must have originated from a different seed. Hence, of the excellent papers which we were trom this same standpoint all varieties unable to publish last week, on account of cultivated plants which are propagated from the seed. Hence, the control of the excellent papers which we were the excellent papers which are propagated to publish last week, on account the excellent papers which are propagated to publish the excellent papers which are propagated to pus gated vegetatively—that is, by grafts, buds, cuttings, etc.—are merely an individual cut up into many parts. There fore if the individual was self-sterile in the first place, all its bud-offerings will share in this character just as they have in other characters which mark the variety. From a horticultural standpoint self-sterility is of vast importance.

From a practical standpoint it is always safest to take the benefit of the doubt and if a variety has been proven under any condition to be self-sterile, to assume this for all conditions. It is safe to assume that under all conditions the fruit will be better when the result of cross-fertilization.

In planting there should be a mixture of varieties and such a selection that they will bloom about the same time. It is an advantage if honey bees be quartered in the vicinity of the orchard, as the trees must depend on insects to bring the foreign pollen. A great variety of wild insects aid more or less in this, but honey-bees are by far the most efficacious for orchard con-

ditions.

Whether or not a variety is selfsterile can only be determined by experiment. If the fruit grower has the time and patience and is a careful manipulator he can determine this fact for himself. Before the bud opens, that is before the anthers shed their pollen, the stamens should be cut out of the flower and the flower enclosed in a sack. Fine netting is a sufficient protection. This is to prevent insects from visiting the flowers. A number of flowers, the more the better, are treated in this way, and half pollinated with their own pollen and half with pollen from another variety, keeping them covered a sufficient length of time for the fruit to set. The relative benefit of the crossing can be observed. To transfer the pollen a clean stick or the anther held with a pair of small forceps, is good. Great care must be observed that only such pollen reaches the stigma as is wanted.

For the benefit of those who do not have Professor Bailey's work, I append a list of fruits whose relative fertility had been determined at that time (Bailey's Principles of Fruit Growing 1898, page 229.)

Pears. (Waite)-Varieties more or less self-fertile: Angoulme, Bosc, Bousock, Clairgeau, Clapp, Columbia, De la Chene, Doyenne Sieulle, Easter, Ganset's Bergamotte, Gray Doyenne, Howell, Jones, Lawrence, Louise Bonne, Mount Vernon, Pound, Sheldon, Souvenir du Congress, Superfin, Colonel Wilder, Winter Nelis.

Varieties generally self-sterile: An-jou, Bartlett, Brockworth, Buffum, Diel, Doyenne d'Alencon, Flemish Beauty Doyenne d'Alencon, Flemish Beauty, Heathcote, Kieffer, Le Conte, Manning, Elizabeth Seckel, Tyson, White Doyenne. Apples. (Waite and Fairchild.)— Varieties more or less self-sterile: Bellfleur, Chenango (Strawberry), Gravenstein, King, Northern Spy, Norton, Melon, Primate, Rambo, Red Strachan, Roxbury Russet, Spitzenburgh, Talman Sweet.

Varieties mostly self-sterile: Bald-

Varieties mostly self-sterile: Bald-win, Codlin, Greening.

Many of the native plums are notoriously self- cerile, particularly Wild Goose (Wild Goose is well pollinated by Moreman, Newman, Smiley, and Miner, according to J. W. Kerr).

Other self-sterile varieties are: ner.

er, Wazata, Minnetonka, Itasca. Varieties more or less self-sterile Moreman, Newman, Wayland, Golden Beauty, Marianna, Deep Creek, Purple, Yosemite.

Strawberries often lack stamens altogether, whilst others, like Crescent have so few and so poor stamens that they are practically self-sterile Ordinarily there should be a row of perfect flowered variety for every two

"The quince seems to fruit nearly as well with its own pollen as with that of another variety."—Waite.

Grapes. (Beach.) — Unfruitful when planted by themselves: Black Eagle, Brighton, Eumelan, Massasoit, Wilder. Rogers' No. 5, Gaetner, Merrimac Requa, Aminia, Essex, Barry, Herbert Salem.

Able to set fruit of themselves: Concord, Diamond, Niagara, Winchell or Green Mountain, Rogers' Nos. 13, 24, and 32, Agawam, Delaware.

Wild Currants and Huckleberries in Kansas.

EXCERPTS FROM A PAPER BY R. N. BAKER, GRANTVILLE, KANS.

Ribes prostratum, or wild currant, is found in cold, wet places as far north as British Columbia along the Rocky Mountains, to the south part of Colorado, as high as 6,000 feet; it flowers from May to June according to location; fruit ripens from July to August; mode of propagation is from the seed and runners from the root sprouts. As to taste of the fruit, it is not pleasant; it is sometimes called skunk currant It varies in taste in location of growth; in damp, shady places it is more mild and somewhat pleasant to the taste and considered quite healthful. The fruit holds on to the stems well, be coming quite dry before they will dror off so that they furnish food for birds and animals for a long time, showing the goodness of the All Wise Provider.

the goodness of the All Wise Provider. Ribes Aureum.—As to general character, it is nearly the same as the many other kinds. Skin on the fruit tough and thick filled with mucilaginous pulp and succulent sub-acid juice with 8 to 32 seeds; the seeds are small, flat, with tough skin; so tough that birds can not digest them; they bloom in April. Fruit begins to they bloom in April. Fruit begins to ripen in June, continues until the last of July; holds on to the stems well after fully ripe; it multiplies by runners from the roots and by seeds; if dropped in damp, shady places will germinate in eight days and make a growth of 6 inches the first year; it grows best on sandy soil where it is a little damp and shaded half the time; as the hot sun will blister the fruit and dry it so as to spoil it before it gets ripe. It is greatly improved by be-ing cultivated and mulched with straw or any kind of litter, and will hardly ever fail to bear a good crop of fruit and so attractive the children will want to go twice a day to get all they can eat. Then they are good cooked with almost any other kind of fruit, or alone they make good pies or boiled dumplings or stewed for sauce; if the seeds are strained out they make fine require but little sugar to make them pleasant to eat. They are also highly medical—as much so as the whortleberry; the root and leaves being used as both diuretic and astringent; it also makes a good gargle for sore mouth

There are a good many other kinds of fruit that are called currants that I have not described. One in particnlar, that is worthy to be named, as it is light amber, or nearly white when it grows in the shade; a very desirable fruit if it was a good bearer. The vaccinium resinosum, or high

huckleberry.—This shrub grows from 3 to 4 feet high in wet, swampy places but will soon die if the swamps are ditched so as to run the water off. There are none in Kansas that I know of, but in the Eastern and Middle States there are plenty of them. In Michigan they grow well. Berries drop off very easy, bloom in April, fruit ripens in August. Easily gathered by shaking the bushes.

The Vaccine virgatum, or blue huckleberry.—There are none of this kind of fruit that I know of growing in Kansas, but in the Eastern and Middle States they grow well in the open timber land. The bushes grow 2 to 3 feet high on dry sandy ridges. If the timber is not too thick, it will spread all over the ground in a dense thicket Fruit ripens in July.

Keeping Fruit-Marketing After Stor-

EXCERPTS FROM A PAPER BY MAJ. FRANK HOLSINGER, ROSEDALE, KANS.

There never was a better time to plant an orchard than the present. The recent winter of '97 and '98 has destroyed fully one-half of all the orchards planted, while a large percentage of the remainder are injured to a great extent and must soon succumb, and unless great energy shall be used the apple will have passed, or will so far have disappeared as to be beyond the reach of the poorer classes. Should you determine on planting an orchard, you should remember that it will require a few years of care to bring it into bearing, and it must receive it.
Unless you are disposed to give it

intelligent care, you had better not undertake it. I am so deeply impressed that the general and increasing difficul-ties attending fruit growing are so great that nothing but the most intelligent and watchful care can succeed in this industry. I believe that such care will succeed and that there is a boundless field of profit and enjoyment open to the man who avails himself of what is already known in selecting locations,









Also Vegetable and Flower

It matters not how rich the land, Or hard the labor on it, Vexation is the only crop Bad seed will raise upon it.

All seed warranted to be pure and reliable, as per page 2 of catalogue. Our trade with market gardeners is immense; and market gardeners buy none but the best of seed. Write for our new Vegetable and Flower Seed catalogue—free to everybody.

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choosing varieties, fighting insects, and other enemies, and in all other ways

caring for orchards.

The markets to the west and north are unlimited and open to us for all the fruit we can produce, and however plenty and cheap earlies and wind falls may be that which is well developed and cared for will always sell for prices which will make the land and the labor devoted to their culture and preserva-tion, more profitable than that devoted to any of the more common pursuits.

Apples should be carefully handled and only the best packed. To keep well, I think an air-tight barrel the best. If wrapped in tissue paper all the better. Our Missouri friends at the late Paris Exposition double wrapped in one of tissue and one of oil. So well did these apples keep that I am informed there was not more than 1 per cent of loss. These apples were placed in cold storage until wanted; and kept as close the freezing point as possible. Much of the loss by cold storage is in the variations of temperature. I have known in so-called cold storage, a variation of 30°. Where this condition exists it were better your apples had not been in cold storage at all.

Whatever plan you may adopt, remember that everything will depend upon the eveness of the temperature. It is the variations that do most injury.

Catching the cue from our worthy member from Greenwood County, that apples kept in dry sand preserved them, I have some 8 or 10 bushels in dry dust taken from our macadam streets. These apples at the present time (Christmas) are firm and promise

to keep indefinitely. To attempt keeping large quantities by this method is possibly not to be thought of, and yet I am not sure. To the fruit grower without the means of cold storage it affords him opportunity to keep a sufficient quantity to last him until new apples come again Why do apples keep better in this way than in open cellar? I answer, because of the exclusion of air that fluctuates degrees of temperature. The dry dust seems always cool, no matter how high the temperature may indi-I admit this method is new to me and I may be too sanguine. No two swallows ever yet made a summer and my friend Munger's dry sand, my dry dust, may not be the best way; yet we claim for it success to a certain degree and for one I am sanguine that

it will succeed. In the marketing of apples, if they have been carefully handled, selected, packed in barrels and kept at a proper temperature, they will not fail to command a price that should satisfy.

When apples are in the condition they were last fall, with less than 5 per cent of a crop of No. 1, it were folly to attempt to keep them. I feel sure that had we so desired to keep them, that fully 75 per cent of those sold at from 40 to 75 cents per bushel in open packages, without expense other than hauling to market, would have been worse than wasted. If, however, you are remote from market then there is no re dress. You must depend on a foreign market and commission men to handle your fruit. During the last season there were surprises and surprises.

The reports from the East, North and West told the story of immense crops. Nothing, we were told, ever equalled it. The Middle West was an exception in the larger prospect before The apple crop was, we were told only 40 or 50 per cent of a crop, and very inferior in quality. With us, our apples had scab, codling-moth, gougers, curculio, canker-worms and wind. The latter did much to lighten the crop. The gale that swept Galveston from be less, also the loss of time and money the face of the earth extended inland, for repairs. In strong, shallow wells sweeping fully one-half of all the fruit in its course from Texas to Maine. This destructive agency did much to stiffen the prices of our apple market, and apples at a drag of from 50 cents to \$1 per bushel advanced fully 100 per cent, and have continued to advance until now good apples are worth about all you choose to ask for them with few first-class apples in sight.

One other thing in handling and keeping fruit is in selecting long keeping varieties. I am glad to call attention to a new favorite, which originated in southern Missouri, that for good qual-ity and possessing the highest merit as a cold storage fruit, having possibly no equal, always coming out of cold storage rosy and crisp and in quality the equal of Jonathan. All such new va-rieties will ever be welcomed by ruit growers everywhere. A hearty greeting to the "Ingram," a plate of which we herewith submit.

ington.

Reports on Irrigation.

EXCERPTS FROM A PAPER BY E. D. WHEELER, WAKEENEY.

The question that naturally arises in the mind of the eastern Kansas man when he notices that the subject of irrigation occupies a prominent place on our program is, why should the time of this society be taken for the discussion of the subject of irrigation? Is not this a horticultural meeting? us answer the second question first by saying, Yes, and that is the reason why we talk irrigation. We find on exhibition at this meeting apples that have been grown on a tree that has been irrigated rigated, and we notice that they are very much larger and fairer than others of the same kind on a tree that was not irrigated, and we hear of com-plaints made of orchards that have been planted five, ten, and fifteen or twenty years that are dying, and that other trees are stunted, and some do not produce, while others let go of their apples before they are properly matured, and still others which are not thrifty, but sure to fall an easy victim to heat, dry winds, sunscald and the borer.

We listened to one report at this meeting that stated the fact that the best apples found in his district grew where they received benefit from the subirrigation, or underflow from the Arkansas River. In New Jersey and other states experiments have been made at the expense of the states which have demonstrated the fact that it is very profitable to irrigate small fruits in an average year, and will insure a large yield in a dry year when without it the cost of gathering and marketing would have exceeded the amount obtained for the crop, in spite of the fact that prices were higher on account of a short crop. If this is true in New Jersey, Michigan, Illinois, and Wisconsin, it must be true even in eastern Kansas. Occasionally we will have a year when irrigation is unnecessary but I venture to say that no small-fruit grower or market gardener can afford to run the risk attending the neglect to provide himself with some means for irrigating. Not being a crank on irrigation, I was much pleased to hear the gentleman from Ottawa County tell of hunting for a porous subsoil for the orchard which he intended to plant, and that he found it seven miles from home, planted the orchard, and has made a success of it. "Where there is a will there is a way," is as true as ever, but it is not often that we will find men who will go so far to find a place where they can grow fruit without irrigation, especially if it is only for family use and their homes are already established—though I hardly expect that the members of this society will be willing to concede that any farm home is established unless an abundant supply of fruit and vegetables are adjuncts. Beyond question more care should be exercised in the selection of the home and the orchard. In all of our western counties there are locations where fruit can be grown with out irrigation, but it is not often that the ideal spot can be found where there is natural subirrigation. It is in my judgment true that a very large majority of the homes in the western half of the state can not grow fruit or vegetables successfully without irrigation, and nine times out of ten it must be wind-mill irrigation or not any. The most common mistakes that are made may be safely said to be the building of large reservoirs for a limited supply of water, the erection of large windmills, and the use of large cylinders where smaller windmills and cylinders would raise more water for the reason that they would lift water in a much lighter wind, the leakage would the larger mills and pumps will not be out of place. Sometimes where several neighbors are supplied with strong, shallow wells, or ponds, they can use a portable gasoline engine, and sometimes they can arrange for a man to keep it going every day, and even every night. Through the efforts of western men we are expecting the appropiation of at least five million dollars for the building of large storage reservoirs in a group of Western States of which Kansas is one. Surveys of sites have been made by the Govern-ment in nearly all of the states includ-ed in the group except Kansas and Ne braska. Kansas will not be apt to even get one surveyed unless we ask for it, and I suggest that a resolution expressing our desires be reported by the committee and that it be adopted by the unanimous vote of this meeting and forwarded to our representatives at Wash-

Pencilaria.

The use of fodder plants is growing greatly every year, and we have no doubt the readers of this paper will be interested in a new candidate for public favor called Pencilaria. It is a most wonderful forage plant of great productiveness, unexcelled, if equaled, by any other plant for its quick growth, immense size and splendid quality, and it is thought that it will prove of much value to stock farmers. It has been improved and acclimated so that it not only produces an immense crop of fodder, but will produce a good seed crop as far north as central Iowa.

The seeds are quite small, about the size of a pin head, but its growth is truly wonderful. It is usually planted as soon as the ground becomes warm, about corn planting time, and it begins to tiller or stool out at once, our illustration showing a plant growing to a height of 12 to 14 feet. As many as 43 large leafy stalks have been produced from one seed. At a distance a field of



PENCILARIA.

Pencilaria looks like mammoth timothy. The heads are only about an inch in diameter, but range from 10 to 16 inches in length and are closely set with thousands of small seeds. If allowed to grow until the flower heads begin to develop, before cutting, it is claimed that it will yield the heaviest crop of any fodder plant in cultivation.

The best way to handle the crop is to mow it when from 3 to 6 feet in height. It will immediately start up again and can be cut several times during the season. One farmer who made a careful test says he sowed the seed on the 15th of May in drills 18 inches apart. In twelve days he cultivated the crop once and it grew so rapidly after that time that it smothered out all weeds. His first cut was made July 1st, forty-five days after sowing the The crop was about 7 feet high and it weighed green, thirty tons per acre, and when dry gave six and onehalf tons of hay per acre. The second growth was cut on August 14 when the plants were 9 feet high, and the crop weighed fifty-five tons per acre green. and eight tons dry. The third cutting was not made until October 1. weighed ten tons green, and one and a half tons dry, thus making a total crop of ninety-five tons per acre of green fodder, and when dried made sixteen tons of hay. If there is any other fodder plant in existence which will afford such a yield we do not know

It is claimed to be equally as nutri-tious as corn fodder, which it greatly resembles, and it is greatly relished, either green or dry, by horses, cattle, and in fact all kinds of live stock.

Knowing that thousands of our readers would be interested in trying this new plant, we have made arrange with the Iowa Seed Company, of Des Moines, Iowa, who are introducing it this year, to forward a small package (sufficient for planting a row 100 feet long) to any one who asks them for it, provided they mention this paper. A postal cord request is sufficient.

"I was in bed five weeks with the grip—nerves shattered, stomach and liver badly deranged. Was cured with Dr. Miles' Nervine and Nerve and Liver Pills."—D. C. Walker, Hallsville, Ohio.

His Answer.

"Johnny," queried the teacher of the new pupil, "do you know your alpha-

"Yes'm," answered Johnny.
"Well, then," continued the teacher,
what letter comes after A?"
"All the rest of 'em," was the tri-

umphant reply.—Tit-Bits.



Giant Pansies. Sweet Peas, Mayflower.

Snow White Sweet Pea—Navy Blue.
Coal Black.
Cardinel.
Yellow.
Azure Blue.
Violet.
Striped.

Scarlet.
Viv. Scarlet.
Viv. Scarlet.

One Packet of each, THE MAYFLOWER Magazine until 002, (devoted to Flowers and Gardening, Elegant Cuts and Colored plates), and our Great Catalogue, all for 80c. nd Colored plates, and our creat Catalogue, an lor of Our Catalogue for 1901.—New Century E lon—Greatest Book of Flower and Vegetable Sec sulbs, Plants and New Fruits, 152 pages, 500 illust lons, 12 colored plates, will be mailed free to any winters as well as the colored plates. John Lewis Childs, Floral Park, N. Y.

WORTH THE MONEY

Peach Trees Grown from Cuttings.

If you have a fine variety of Peach trees and wish to increase their number without cost of buying more trees, you can grow them from cuttings without any trouble. For fifty cents I will send instructions how and when to plant the cuttings for producing the same kind of fruit as the parent tree. ... Address—

M. W. ALLEN, Fruit Grower, Eldon, Miller County, Mo.

GOT A DOLLAR?

FRUIT TREES, SHRUBS or VINES

25 Grafted Apple Trees for \$1 25 Budded Peach Trees for \$1 40 Concord Grape Vines for \$1 and true to name. bill good for 25c and Catalogue in German or English free. We pay freight on \$10 orders.
Fairbury Nurseries, Box 16, Fairbury, Neb

AGENTS WANTED!

40 per cent Commission paid to rus-tling men to canvass for Nursery Stock. OUTFIT FREE. Address,

HART PIONEER NURSERIES.

Fort Scott, Kansas.

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FREDONIA, N. Y.

INTRODUCER OF

Campbell's Early ... The best Grape.

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The best Currant.

Fay Large list of Grape Vines and Small

Fruit Plants. Catalogue free.

Fruit and Ornamental TREES German Nurseries, (Carl Sonderegger, Prop.) Box P. Beatrice, Neb.

NEBRASKA TREES HONEST IM QUALITY
Cherry, 2 to 3 ft., 529; freestone peach, 52; Concord
grape, 52 per 100. 1000 Ash, 51; Catalpa, Locust, R. Mulberry, B. Elder and Osage Hedge; low prices. Catalog free. JANSEN NURSERIES, Box 89, Fairbury, Neb.

SEEDS AND POULTRY SUPPLIES. Seeds, bulbs, and poultry supplies. T. LEE ADAMS 419 Walnut Street, Kansas City, Mo.

CTARK TREES SUCCEED WHERE Fruit Book Free. Result of 76 years' experience. STARK BROS., Louisiana, Mo.; Dansville, N.Y.



The Poultry Hard

Kansas State Poultry Show.

Kansas State Poultry Show.

The twelfth annual exhibition of the Kansas State Poultry Association was held in the Auditorium at Topeka, January 7-12. There were 960 chickens, ducks, and turkeys on exhibition, an increase of 160 over last year. Besides these there were 250 pigeons and 150 Belgian hares. The quality of the stock exhibited was the finest ever seen in this section, and the scores show that Kansas poultry is excelled by none. The amount of cash premiums paid this year far exceedes anything before attempted. Nearly three hundred dollars in cash premiums have been paid this year, as against seventy-two dollars last year. These facts indicate the rapid progress the poultry industry is making in Kansas.

The Auditorium is a magnificent hell in

the poultry industry is making in Kansas.

The Auditorium is a magnificent hall in which to hold a show, and thousands of visitors went to see the exhibit.

The following officers were elected for the ensuing year: President, Prof. L. L. Dyche, Lawrence; vice president, D. A. Wise, Topeka; secretary, Geo. H. Gilles, Topeka; treasurer. Thos. Owen. Directors, Prof. L. L. Dyche, Lawrence; D. A. Wise, Topeka; Geo. H. Gillies, Topeka; Thos. Owen, Topeka; Col. J. W. F. Hughes, Topeka; Chas. Steinberger. Topeka; M. L. Canfield, Belleville; H. C. Short, Leavenworth; G. W. Roberts, Larned.

It is expected that fifteen hundred fowls can be got next year, and the

It is expected that fifteen hundred fowls can be got next year, and the management have gone to work with that end in view.

Following are the awards:

GRAND PRIZE NO. 1. Chas. Steinberger, Topeka. Kansas— For the largest display of any one va-riety of chickens, owned by one exhib-itor, scoring over 90 points.

GRAND PRIZE NO. 2. Geo. W. Cooper, Topeka. Kansas— For the second largest display of any one variety of chickens, owned by one exhibitor, scoring over 90 points. GRAND PRIZE NO. 3.

M. L. Canfield, Belleville, Kansas-For the third largest display of any one va-riety of chickens, owned by one exhib-ntor, scoring over 90 points. GRAND PRIZE NO. 4.

J. W. F. Hughes, Topeka, Kansas— For the largest display of two or more varieties of chickens, owned by one ex-hibitor, scoring over 90 points.

GRAND PRIZE NO. 5. H. C. Short, Leavenworth, Kansas— For the second largest display of two or more varieties of chickens, owned by one exhibitor, scoring over 90 points.

GRAND PRIZE NO. 6. W. A. Forbes, North Topeka, Kansas— For the third largest display of two or more varieties of chickens, owned by one exhibitor, scoring over 90 points. GRAND PRIZE NO. 7.

Mrs. McGill, Leavenworth, Kansas For the largest display of chickens any lady exhibitor.

BARRED PLYMOUTH ROCKS. BARRED PLYMOUTH ROCKS.

Geo. B. Ross, Alden, Kans., 1 hen, 93½;
4 hen, 92½; 5 hen, 91½; 1 cockerel, 93; 1
pullet, 92½; 3 pullet, 92½; 5 pullet, 92; 1
pen, 185.56; 4 pen, 183.31, Special for
largest display in variety scoring over
90 points.
Sealy L. Brown, Coffevville, Kans., 2
cockerel, 92½; 4 cockerel, 92; 2 pen, 184.37;
5 pen. 183.6.

Mrs. F. A. Hargrave, Richmond,
Kans., 2 hen, 92½; 3 hen, 92½.

J. K. Thompson, Topeka, Kans., 4 pullet, 92.

Milo Emery, Overbrook, Kans., 2 cock,
89½.

Milo Emery, Overbrook, Kans., 2 cock, 89%.
G. W. Roberts, Larned. Kans., I cock, 92%; 3 cockerel, 92%.
Pinkerton & Co., Clay Center, Kans., 5 cock, 87%.
Nick Arnold, North Topeka, Kans., 4 cock, 87%.

cock, 87½. H. B. Brockett, Topeka, Kans., 3 cock,

884.
H. D. Nutting, Emporia, Kans., cockerel, 92; 2 pullet, 924; 3 pen, 183.25.
WHITE PLYMOUTH ROCKS.

WHITE PLYMOUTH ROCKS.

Mr. and Mrs. W. R. Comstock, Topeka, Kans., 2 cock, 88%.

M. L. Canfield, Belleville, Kans., 1 cock, 94%; 1 cockerel, 95½; 2 cockerel, 95½; 3 cockerel, 95½; 3 cockerel, 95½; 3 hen, 95½; 4 hen, 95½; 5 hen, 95½; 3 hen, 95½; 4 hen, 95½; 5 hen, 95½; 3 pullet, 95½; 1 pen, 191.37; 2 pen, 190.81; 3 pen, 190.31; special for largest display in variety sooring over 90.

W. E. Bartlett, Belle Plaine, Kans., 5 cockerel, 94½; 4 pen, 188.

BUFF PLYMOUTH BOCKS

BUFF PLYMOUTH ROCKS.

J. H. Scott, Lawrence, Kans., 2 hen, 894; 3 pullet, 91½; 4 pullet, 91½; 5 pullet, 91½; 4 pen, 179.37.
C. H. Popence, Topeka, Kans., 5 cockerel, 89%.
Hugh Carfrae, Topeka, Kans., 5 cockerel, 90%.
Mrs. M. J. Jardon, Baldwin, Kans., 3 cockerel, 91; 1 hen, 90%; 1 pullet, 91%; 3 pen, 182.
The Smiths Menhetter Kans.

pen, 182.
The Smiths, Manhattan, Kans., 1 cock, 90; 2 cock, 86%; 1 cockerel, 93; 2 cockerel, 91%; 2 pullet, 91%; 1 pen, 184.5; 2 pen, 182.31. Largest display in variety scoring over 90 points.

SILVER LACED WYANDOTTES.

Mrs. Geo. E. McGill, Leavenworth, 5 cockerel, 91%; 3 pen, 184.5; 4 pen, 182.87; special for largest display in variety scoring over 90.

Mrs. J. W. Gause, Emporia, Kans. 1 cock, 901/2; 1 cockerel, 93%; 2 cockerel, 92%; 1 hen, 94; 1 pullet, 94; 2 pullet, 93%; 4 pullet, 93%; 5 pullet, 93%; 1 pen, 187.12; 2 pen, 186.58.

H. J. Harnly, McCherson, Kans.

H. J. Harnly, McPherson, Kans., 3 pul-

GOLDEN WYANDOTTES.

J. R. Douglas, Mound City, Kans., 3 cockerel, 92½; 5 pullet, 92½; 3 pen, 184.93.

Ashley Cone, Belle Plaine, Kans., 1 cock, 92; 2 hen, 90½; 3 hen, 90½; 2 cockerel, 92½; 4 cockerel, 91½; 1 pullet, 93½;

2 pullet, 93; 3 pullet, 93; 4 pullet, 92%; 2 pen, 185.56. Special for largest display in variety scoring over 90 points.
Geo. W. Shelley ,McPherson, Kans., 1 hen, 92; 1 cockerel, 53½; 1 pen, 185.75.

BUFF WYANDOTTES.

BUFF WYANDOTTES.

W. A. Forbes, North Topeka, Kans., 1 cock, 92%; 4 hen, 91; 5 hen, 90%, 5 pullet, 92½; 1 cockerel, 92½; 2 cockerel, 92; 4 pullet, 92½; 2 pen, 184.37.

G. H. Kittell, McPherson, Kans., 5 cockerel, 90; 4 pen, 181.25.

J. W. F. Hughes, Topeka, Kans., 2 cock, 91½; 1 hen, 92; 2 hen, 91½; 3 hen, 91½; 4 cockerel, 90½; 1 pullet, 93¾; 2 pullet, 93¾; 3 pullet, 93¾; 3 pen, 181.43. Special for largest display in variety scoring over 90 points.

Allen G. Philips, Topeka, Kans., 3 cock, 87½; 3 cockerel, 91¾.

WHITE WYANDOTTES.

WARDOTTES.

W. A. Forbes, North Topeka, Kans., 1 cock, 93½; 1 cockerel, 93½; 3 cockerel, 93½; 1 hen, 95; 3 hen, 94½; 5 hen, 94½; 4 hen, 94½; 1 pullet, 94½; 5 pullet, 94; 1 pen, 188; 3 pen, 187.18. Special for largest display in variety scoring over 90 points. Geo. B. Clary, Fairbury, Neb., 2 hen, 94½; 1 cockerel, 93½; 2 pullet, 94½; 3 pullet, 94½; 2 pen, 187.75.

W. A. McCarter, Topeka, Kans., 5 cockerel, 83½.

L. J. Foster, Whiting, Kans., 4 cockerel, 91¾; 4 pullet, 94½.

BLACK LANGSHANS. Mr. and Mrs. B. F. Carson, Belleville, Kans., 1 pullet, 95%; 2 pullet, 95½; 3 pen, 189.18. F. P. Chance, N. Topeka, Kans., 2 cock.

189.15.
F. P. Chance, N. Topeka, Kans., 2 cock, 9214.
W. H. Ward, Nickerson, Kans., 1 cockerel, 95½; 2 hen, 95; 1 pen, 189.81.
Geo. W. Cooper, Topeka, Kans., 3 cock, 91½; 5 cock, 91½; 3 cockerel, 94½; 5 cockerel, 94½; 3 hen, 94½; 5 hen, 94½; 4 pullet, 95; 2 pen, 189.37. Special for largest display in variety scoring over 90.
J. W. F. Hughes, Topeka, Kans., 1 hen, 95; 4 hen, 94½; 3 pullet, 95½; 5 pullet, 95; 4 pen, 188.93.
Dennis Keefe, Newton, Kans., 5 pen, 188.81.
E. L. Simpson, Topeka, Kans., 4 cock, 91½.
D. A. Wise, Topeka, Kans., 1 cock, 94; 2 cockerel, 95½; 4 cockerel, 94½. . P. Chance, N. Topeka, Kans., 2 cock,

D. A. Wise, Topeka, Kans., 1 cock, 94; 2 cockerel, 954; 4 cockerel, 944. WHITE LANGSHANS.

P. L. Wise, Topeka, Kans., 1 cockerel, 91½; 2 cockerel, 90½; 1 pullet, 93½; 2 pullet, 92½; 3 pullet, 92½; 4 pullet, 92½; 5 pullet, 92½; 1 pen. BUFF COCHINS.

BUFF COCHINS.

Heather & Snyder, Huntsville, Mo., 4
hen, 94; 5 pen, 184.81.

J. M. Myers, Jefferson, Kans., 2 cock,
92½; 3 cockerel, 94½; 5 cockerel, 93½; 3
pen, 189.12.

Forbes Bros., Topeka, Kans., 4 cock, 90;
1 hen, 94¾; 3 hen, 94; 5 hen, 94.
Chas. Steinberger, Topeka, Kans., 1
cock, 93; 3 cock, 92½; 5 cock, 87; 2 hen,
94¾; 1 cockerel, 95½; 2 cockerel, 95½; 4
cockerel, 94¼; 1 pullet, 95½; 2 pullet, 95½;
3 pullet, 95½; 4 pullet, 95; 5 pullet, 95½;
3 pullet, 95½; 4 pullet, 95; 5 pullet, 94¾; 1
pen, 190.75; 2 pen, 189.93; 4 pen, 188.43.
Special for largest display in variety
scoring over 90.

LIGHT BRAHMAS.

LIGHT BRAHMAS.

A. Sheets, N. Topeka, 1 cock, 92½; 1 hen, 94½; 2 hen, 94; 3 hen, 93½; 4 cockerel, 92½; 5 cockerel, 92½; 3 pullet, 94½; 4 pullet, 94; 1 pen, 188.93; 4 pen, 188.06. Special for largest display in variety scoring over 90

over 90.

T. F. Weaver, Blue Mound, Kans., 3 cock, 904; 5 hen, 33½; 1 cockerel, 934; 3 cockerel, 93; 5 pullet, 94; 3 pen, 186.68; 5 pen, 185.62, Chas. Foster & Son, El Dorado, Kans., 4 hen 231.

Chas. Foster & Son, El Dorado, Kans., 4 hen, 9314.
A. L. Withers, Valley Falls, Kans., 2 cock, 9214.
Geo. B. Clary, Fairbury, Neb., 2 cockerel, 93; 1 pullet, 94%; 2 pullet, 94%; 2 pen, 186.75.

DARK BRAHMAS.

Nick Arnold, Topeka, Kans., 2 hen, 89%; 1 cock, 90%; 1 pullet, 92%; 2 pullet, 91; 3 pullet, 90%; 1 pen, 181.37.

S. C. B. LEGHORNS. S. C. B. LEGHORNS.

C. M. Rose, Elmdale, Kans., 2 hen, 92; 3 hen, 92; 4 hen, 91½; 4 cockerel, 89½; 2 pullet, 93½; 5 pullet, 92¾; 2 pen, 183.37; 4 pen, 180.87. Special for largest display in variety scoring over 90.

H. C. Short, Leavenworth, Kans., 1 cock, 91¾; 1 hen, 93½; 5 hen, 91; 1 cock-erel, 91¾; 3 cockerel, 91¼; 1 pullet, 93½; 1 pen, 184.68.

W. A. Lamb, Manhattan, Kans., 5 pen, 179.75.

W. A. Lamb, Manhattan, Kans., 5 pen, 179.75.

H. L. Popence, Topeka, Kans., 2 cockerel, 91½; 3 pullet, 93; 3 pen, 183.18.
Chas. C. Smith, Lyndon, Kans., 5 cockerel, 89½; 3 pullet, 92¾.
Clyde Patterson, Sedalia, Mo., 2 cock, 8814. S. C. W. LEGHORNS.

S. C. W. LEGHORNS.

J. T. Fry, Topeka, Kans., 2 cock, 934; 3 hen, 93½; 2 cockerel, 92½; 5 cockerel, 91; 2 pullet, 94½; 5 pullet, 93; 2 pen, 186.68. Special for largest display in variety scoring over 90.

H. C. Short, Leavenworth, Kans., 3 cock, 92½; 4 cock, 89½; 2 hen, 94½; 1 cockerel, 92½; 3 cockerel, 91½; 1 pullet, 94½; 4 pullet, 93½; 3 pen, 186.37.

L. C. Huntington, Omaha, Neb., 1 cock, 93½; 1 hen, 95; 5 hen, 93½; 4 cockerel, 91½; 3 pullet, 94; 1 pen, 187.50.

Sauerbier Bros., Independence, Mo., 5 cock, 89½; 4 hen, 93½; 4 pen, 182.43.

R. C. W. LEGHORNS.

Mrs. J. E. Warren & Son, Cottonwood

Mrs. J. E. Warren & Son, Cottonwood Falls, Kans., 1 hen, 914; 2 hen, 8916; 1 cockerel, 91; 1 pullet, 913; 2 pullet, 9016; 1 pen, 181.50. Special for largest display in variety scoring over 90.

S. C. BUFF LEGHORNS.

W. C. Sherrill, Salina, Kans., 2 cockerel, 88½; 2 pullet, 91; 3 pullet, 91; 5 pullet,

90%; 2 pen, 178.81. Special for largest display in variety scoring over 90.

Mr. & Mrs. Shoemaker, Narka, Kans., 3 cockerel, 88½; 1 pullet, 92½; 4 pullet, 91; 1 pen, 179.81.

S. C. B. MINORCAS. W. E. McCarter & Son, 1 hen, 91; 2 hen, 88; 1 pullet, 92%; 2 pullet, 99%. Special for largest display in variety scoring over 90.

BLUE ANDALUSIANS. J. D. Martin, Salina, Kans., 1 cockerel, (Continued on page 83.)

"Grip robbed me of my sleep and I was nearly crazy with neuralgia and headache. Dr. Miles' Pain Pills and Nervine cured me."—Mrs. Pearl Bush, Holland, Mich.

POULTRY BREEDER'S DIRECTORY.

BLACK • LANGSHANS.

30 cockerels, score 92 to 96¼, and 40 pullets, score
92 to 96¾, for sale.

J. C. WITHAM, - - Cherryvale, Kansas.

FOR SALE—High-class poultry, stay-White P. Rocks and B. P. Rocks from A. C. Hawkins, Mass.; Light Brahmas, with fine dark points, and S. C. B. Leghorns, fine in shape and color; price \$1 to \$3. Adam Rankin, 2222 Main st., Quincy, Ill.

M. B. TURKEYS, BARRED PLYMOUTH ROCKS at prices to move them, farm raised from prize winning stock. 15 years a breeder. M. S. Kohl, Turley,

I HAVE 250 AS FINE B. P. ROCKS as can be found east or west; can furnish pairs, trios and pens. no kin; they are bred right and can not help but breed right. One litter of COLLIE PUPS ready to ship now. Satisfaction guaranteed. W. B. Williams, Box 142, Stella, Neb.

FOR SALE—Mammoth Bronze turkeys, both sexes. 41-pound tom at head of herd. Eggs in season. Barred Plymouth Rocks. both sexes. Eggs in season. Edwards & Parker, Kinsley, Kans.

40 BRONZE TURKEYS sired by a 40-pound tom. Two separate pens. Write for prices. Address. Mrs. Fred Cowley, Columbus, Kansas.

FOR SALE—Pure-bred Barred Plymouth Rocks. B. B. Games, and White Holland turkeys. Mrs. Porter Moore, Box 541, Parsons, Kans.

WHITE WYANDOTTE COCKERELS—\$1.00 each. white Holland turkey cockerels \$1.50. "Your money back if you want it." Darby Fruit Co., Amoret, Bates Co., Mo.

FOR SALE—Black Langshan cockerels, bred from prize-winners. Ideal form and size. Mrs. S. A. Blonaker, Garnett, Kans.

HIGH CLASS POULTRY—White and Silver Wyandottes, W. P. Rooks Will book orders for eggs until February 15, \$1 for 15. White Wyandotte and W. P. Rook cookerels for sale, \$1.50 to \$6 each. R. F. Meek, Hutchinson, Kans.

75 BLACK MINORCAS—(Northrum's strain). Most ly pullets, \$5 per dozen. A. S. Parson, Garden City Kans.

B. P. ROCKS, AND COLLIE DOGS—Early hatched cockerels, very large and finely marked, and some yearling hens and a few cock birds. Two fine litters of Collie pupples. One fine male pup 2 months old from imported Royal Lassie's litter left. To secure bargains write at once. W. B. Williams, Box 142, Stella, Neb.

BUFF COCHINS—Cockerels \$1. M. B. turkeys \$2 if taken soon. A. B. Mull. Iola, Kans.

WHITE HOLLAND TURKEYS—Toms and hens; pairs and trios. Barred Plymouth Rocks, Pekin ducks. Prices reasonable. J. C. Curran, Curran, Kans.

BARRED PLYMOUTH ROCK—And White Wyan dotte cockerels, 50 cents to \$1 each. J. A. Sawhill Edgerton, Kans.

PURE-BRED WHITE AND BARRED PLYMOUTH ROCKS.

200 early-hatched Cookerels and Pullets for sale.

No better birds anywhere at any price, Write for

T. B. LEPTWICH, Larned, Kansas.

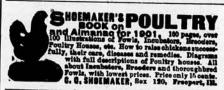
POULTRY.

Standard Poultry.

Barred Plymouth Rocks, White Plymouth Rocks, Partridge Cochins, Buff Cochins, Light Brahmas, Black Lang-shans, Silver Wyandottes, White Wyan-dottes, Silver Spangled Hamburgs, S. C. Brown Leghorns and Belgian Hares. First Class Stock of Standard Birds of Rare Quality. Fine Exhibition and Breeding Stock. Write Me Your Wants. Circulars Free.

A. H. DUFF, Larned, Kans.









VICTOR INCUBATORS are made in many sizes to meet every want. Reliable, simple, self-regulating. Oircular free; catalogue 6 cents.

GEO. RETEL CO., Quincy, Ill.

YOU CAN COUNT....

Your Chickens before they are hatched if you use the

BURR INCUBATOR It's made right, works right, is simple sure, and successful. Write for Catalogue BURR INCUBATOR CO Omaha Nebrasi

MAKE HENS LAY when Regs are high-trial Priceless Scores of Success with Poultry is fully told in our New Poultry Book which is seen

BELGIAN HARES.

BELGIAN HARRS FOR SALE.

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particular. Correspondence solicited.

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You cannot fail to appreciate the value of Klondike Incubators and Brooders if you examine the principles of their construction and operation. Their simplicity makes them easy to run. Lack of delicate parts do you want? For free illustrated catalogue which gives full descriptions, KLONDIKE INCUBATOR CO., Box 915, Des Moines, Iowa.

MARKET REPORTS

11

Kansas City Jan	21.—Cattle—Receipts
2.352: calves, 330. The	market was steady
and strong. Represe	DRESSED BEEF
No. Ave. Price.	ERS. No. Ave. Price. 321410 \$5.10
17	32
WESTER	N COWR
211264 4.80 11500 4.70	441297 4.70 241133 4.40
171077 4.35 27875 3.90	44
241037 4.00 · 26843 3.65	1101049 3.90 9844 3.45
45	45 960 8.75 TEERS.
45. 692 4.25 100. 644 4.20 22. 766 4.00 5. 361 3.50	25 754 4.25 45 861 4.10
22 766 4.00 5 361 8.50	60629 4.00 231020 3.85
PANHANI	LE STEERS.
COLORAD 113 620 4.50	O STEERS.
	A STEERS.
OKLAHOM	A STEERS.
19 stk 498 4.50 14 stk 561 4.00	25 stk 755
19 stk 498 4.50 14 stk 561 4.00 32 stk 888 3.85 2 stk 760 3.50	2 stk 730 3.50
ARIZONA	BIEDRS.
58 fdr 967 3.90 2 fdr 990 3.10 TEXAS AND	INDIAN COWS.
13 786 3.25 WESTER	N COWS.
85 644 4.10 10 701 8.50 10 935 2.35	N COWS. 36
IOWA	COWS.
1 650 3.75 18 346 3.30	17 366 3.25 8 652 3.15 2 860 2.90
6 561 3.05 1 750 2.75	2 860 2.90 7 948 2.45
NATIVE	HEIFERS.
11180 4.50 16786 3.80 NATIV	E COWS
2 980 3.75	2 920 3.50
2	31040 2.85
NATIVE	FEEDERS
2920 4.55 441113 4.40 NATIVE	11000 4.50 11160 3.75 STOCKERS.
6	45 836 4.30 4 405 4.00
6	4
STOCK COWS	AND HEIFERS
2 855 3.60 12 551 3.50 6 478 3.10	2
6	21080 2.85 8,071. The market
opened steady to w Representative sale	reak, closing stronger.
No.Av. Price No.A	PricelNo Av Prica
75260 \$5.37½ 5633 71283 5.35 612 5368 5.30 1823 77200 5.27½ 762	23 \$5.37½ 45274 \$5.37½ 77 5.30 72276 5.35 56 5.30 83224 5.30 11 5.27½ 85221 6.27½
77.200 5.27½ 76.22 123.120 4.90 9.11	56 5.30 83224 5.30 11 5.27½ 85221 5.27⅓ 18 4.50 46122 4.50
123120 4.90 91 780 4.25 2 Sheep—Receipts,	75 4.25 20 86 4.421/3 1,381. The market was
steady to strong.	Representative sales:
500 Col.lms. 75 5.40	101 W.lms 75 \$5.40 160 W.lms 74 5.40 33 Ariz.w113 4.50
10 lambs 62 4.25 446 clp.T.w. 85 3.80	248 clp.T.w. 84 3.80

Chicago Live Stock.

Chicago, Jan. 21.—Cattle—Receipts, 18,500. Good to prime steers, \$5.30@6.10; stockers and feeders, \$2.75@4.60; Texas fed steers, \$4.00@4.80.

Hogs—Receipts, 29,000. Mixed and butchers, \$5.10@5.40; good to choice, heavy, \$5.25@4.40; bulk of sales, \$5.25@5.35. Sheep—Receipts, 24,000. Good to choice wethers, \$3.75@4.60; western sheep, \$3.75@4.60; native lambs, \$4.25@5.60.

St. Louis Live Stock.

St. Louis, Jan. 21.—Cattle—Receipts, 2,-500. Native steers, \$3.75@5.80; stockers and feeders, \$2.35@4.60; Texas and Indian steers, \$3.35@4.60; cows and heifers, \$2.30@

Hogs-Receipts, 8,500. Pigs and lights, \$5.10@5.50; packers, \$5.25@5.35; butchers, \$5.35@5.40.

\$3.75@4.25; lambs, \$4.20@5.50.

Omaha Live Stock.

Omaha, Jan. 21.—Cattle—Receipts, 1,600. Omana, Jan. 21.—Cattle—Receipts, 1,600.

Native beef steers, \$4.00@5.45; western steers, \$3.75@4.60; Texas steers, \$3.00@3.80; stockers and feeders, \$3.25@4.60.

Hogs—Receipts, 5,500. Heavy, \$5.25@5.32½; mixed, \$5.25@6.30; bulk of sales,

\$5.25@5.30.

Sheep—Receipts, 3,100. Yearlings, \$4.50@ 5.00; muttons, \$4.00@4.50; lambs, \$4.50@5.50.

Chicago Cash Grain.

Chicago Cash Grain.

Chicago, Jan. 21.—Cash Wheat—No. 2 red, 73½@75c; No. 3, 71@73½c; No. 2 hard winter, 63@71c; No. 3, 67½@71c; No. 1 northern spring, 73½@75c; No. 2, 72½@75c; No. 3, 63@73c. Corn—No. 2, 37½c; No. 3, 27½c. Oats—No. 2, 24½c; No. 3, 23½@24c. Futures: Wheat—January, 72%c; February, 72%c; May, 75½c. Corn—January, 37c; February, 37½c; May, 38½@39c. Oats—January, 23%c; May, 25½c.

St. Louis Cash Grain.

hard, 684/@694/c. Corn—No. 2 cash, 364 track, 374/c. Oats—No. 2 cash, 254 track, 254/@26c; No. 2 white, 274/@28c.

Kansas City Grain.

Kansas City, Jan. 21.-Wheat-Sales by sample on track: Hard—No. 2, 66@67e; No. 3, 65@65½c. Soft—No. 2, 69c; No. 3, 67c.

Mixed Corn-No. 2, 85@351/4c; No. 3, 350. mention this paper.

White Corn—No. 2, 36½c; No. 3, 35c.
Mixed Oats—No. 2, 24½c; No. 3, 23½@24c.
White Oats—No. 2, 26@26½c; No. 3, 25½c.
Rye—No. 2, nominally 48c.
Flaxseed—\$1.54.

Prairie Hay—\$5.00@9.00; timothy, \$6.00@ 10.50; alfalfa, \$7.00@9.50; clover, \$7.00@8.50; straw, \$4.00@5.50.

Kansas City Produce.

Kansas City, Jan. 21.—Eggs—Fresh, 161/20

doz.

Butter—Creamery, extra fancy separator, 20c; firsts, 17c; dairy, fancy, 17c; packing stock, 10½c; northern cheese, 12½c; Kansas and Missouri, 11½c.

Poultry, Hens, live, 6½c; roosters, 15@ 17½c each; spring chickens, 7c; ducks, young, 6½c; young toms, 6c; turkey hens, 6½c; young toms, 6c; pigeons, 50c doz. Choice scalded dressed poultry 1c above these prices.

Game—Wild ducks, Mailard, redheads and canvasback, \$3.00@3.50 per dozen; mixed, \$1.75@2.25; rabbits, 50c; squirrels, 50c.

Potatoes—Home grown, 40@50c; Colorado, 85@90c; northern, 50@60c; sweets, 25@35c bu.

35c bu.

Apples—Fancy, \$2.00@3.00 per barrel.

Cranberries, \$8.00@8.50 per barrel.

Vegetables—Green beans, home grown, \$1.00@1.25 bu; tomatoes, California, \$2.25 per crate. Navy beans, \$2.25@2.30. Cabbage, home grown, \$1.00@1.50 per cwt. Onions, \$1.10@1.25 per bu. Cucumbers, \$1.50@2.50 per doz. Egg plant, Florida, \$2.00@2.50 per doz. Hubbard squash, \$1.00@1.50 per cwt. Celery, \$0@65c doz. Cauliflower, Texas, \$3.00@4.00.

THE MCINTOSH & PETERS Live Stock Commission Co

EXCHANGE BLDG., KANSAS CITY STOCK YARDS.

They give any bank in Kansas City or Topeka for ref-erence. Furnish market reports to feeders and ship-pers gratis, and will be glad to furnish any desired information at any time covering their market or its

Special Want Column

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

a number counted as one word. Cash with the order. It will pay, Try it!

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

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FOR TRADE—160-a. farm in Gove Co., Kansas, for trade for mares, cattle or sheep. J. G. Mohler, Salina, Kans.

160-ACRE improved farm in eastern Kansas; snap; \$16 per acre. G. E. Winders, Ottawa, Kans.

FOR SALE—Improved farm 160 acres, all necessary buildings, etc., horses, cattle and farm implements. R. L. Richardson, Scott City, Kans.

FOR SALE—Fine ranch of 880 acres on prong of Marmaton river, Bourbon County, Kansas. Four hundred acres in fine cultivation, balance prairie grass, perennial water. Good barns, scales, cribs, and timber shelter. Large frame farm house, lately new. Two and one-half miles from railroad depot of Hiattville. Reason of sale, sudden total blindness of owner. Value \$25 per acre, one-half cash, one-half in 10 years at 5 per cent semi-annual interest. Address E. F. Ware, trustee, Topeka, Kans.

STOCK FARM WANTED—I want for a customer a stock farm of from 400 to 640 acres. Must have fair buildings, fences, and not over 5 miles to railroad station, and not more than 100 miles from Topeka, south or southwest preferred. These parties have about \$8,000 in good residence property in Topeka to trade for a stock farm that suits. Will send full description on application. Address, John G. Howard, Land Dealer, Topeka, Kans

CATTLE.

FOR SALE-25 high grade Hereford cows with calves. 20 high-grade Hereford heifer calves. Herd bull Here 68560, 5 registered Hereford bull calves sired by Tom Reed 58517, and one Spanish jack five years old. James A. Carpenter, Carbondale, Kans.

FOR SALE—One extra good Cruickshank Short-lorn bull. H. W. McAfee, Topeka, Kans.

FOR SALE—Registered and high-grade Hereford bulls, 8 to 18 months old. A. Johnson, Clearwater, Sedgwick Co., Kans.

BEING PHYSICALLY UNABLE to care for my stock any longer I will sell my entire herd of Short horn cattle consisting of 17 bulls, 3 to 18 months old and 55 cows and heifers, all ages. This is a snap Try and see. J. H. Bayer, Yates Center, Kans.

FOR SALE—75 high grade Hereford bull calves, age 7 to 12 months, extra fine; 22 head registered Hereford bull calves, 8 months old; 15 head registered Hereford bulls, 18 months old; 18 high grade Hereford bulls, 18 months old; 18 high grade Shorthorn bulls, 18 months old; 50 high grade Hereford heifers, 78 to 15-16 bred; 10 registered Shorthorn bulls, 8 to 18 months old; 6 registered Shorthorn bulls, 8 to 18 months old; 6 registered Shorthorn heifers, 2 years old, bred; 4 Shorthorn heifers, 2 years old, bred; 4 Shorthorn heifers, 2 years old, bred; 4 Shorthorn beller calves, registered, 7 to 8 months old; 10 high grade Shorthorn bull calves. Prices reasonable. This stock is all high grade and Hereford and Hereford and Hereford and Hereford hereford the best families. Louis Hothan, proprietor, Carbondale, Kans.

BULL FOR SALE-I offer for sale King of the Roses a 4-year-old Shorthorn bull, deep red, fine breeder. Bred by Hon. G. W. Glick, sired by Winsome Duke 11th, whose portrait appeared December 13 in the Iowa Homestead. King is head breeder and bred in the blue. C. W. Sample, Kingman, Kans.

TWO SCOTCH-TOPPED Shorthorn bull calves sired by Glendower, and out of pure Bates cows. Also a fine lot of B. P. Rocks, both sexes; some nice show birds. I have won more prizes on B. P. Rocks than any other breeder in central Kansas. F. W. Ross, Alden, Rice County, Kansas.

REGISTERED SHORTHORN BULLS—Quality cest, prices low. M. C. Hemenway, Hope, Kans.

FOR SALE—Five registered Holstein bulls, also high grade Shropshire rams and ram lambs. E. W. Melville, Eudora, Kans.

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SEED, BROOMCORN, POP CORN, BEANS, HAY, GRAIN, GREEN AND DRIED FRUIT
of all kinds, or anything you may have to dispose of. We Guarantee Prompt Sales and Quick
Returns for all shipments, also full Market Price and Full Weight. We guarantee to get you
more money for your product than you can get at home. One shipment will convince you of this
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Reference, Produce Exchange Bank, Chicago, and this paper. 198 S. Water St., CHICAGO.

HORSES AND MULES.

FOR SALE—Two Mammoth jacks, and two Mamoth jennets. W. C. Ward, Linwood, Kans.

FOR SALE—One of my draft stallions. I have one black Percheron, and one large English Shire. Both lorses are good individuals and first-olass breeders. Liso a good black jack. Lewis J. Cox, Concordia,

JACKS FOR SALE—At a bargain—10 big, black, mealy-nosed jacks; also 5 registered stallions. Ad-dress S. A. Spriggs, Westphalia, Kans.

FOR SALE—Cleveland Bay stallion, 6 years old, works in any place. Also a 3-year-old Spanish jack; a good one. Price \$400. One and two years time given. J. C. Hyde, Sedgwick, Kans.

FOR SALE OR TRADE—Two black Percheron stal-lions, and two fine black jacks. Write me, or come and ee them. W. Q. Hyatt, Carbondale, Kans.

FOR SALE—The Percheron stallion Beldemeer No. 14927. Black with small star, 10 years old, weight 1850, sired by old Brilliant 1271 (755) (winner at World's Fair). Beldemeer is sound; weight 1850 pounds, is a fine breeder, a good individual and a great shod horse. Also 2 standard bred stallions. An imported French Coach stallion and Jack. Do not write, but if you want to buy come and see them soon at my barn, 213 West Fifth Avenue, Emporia, Kans. W. H. Richards, V. S.

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

SWINE.

FOR SALE-Eight Poland-China boars, good enough to head anybody's herd. Chief I Know strain. Prices low. H. W. Cheney, North Topeka.

FOR SALE—Poland-China pigs, \$6. G. W. Har-nan, Ridge, Kans.

FOR SALE—My herd boar, Wren's Model 17400, sired by Klever's Model 14664; good animal, sound and in fine condition. Will sell cheap, because I can use him no longer. Geo. M. Pierce, Station D., Topeka, Kans. Farm one mile west of Seabrook.

FOR SALE—A few very choice Poland-China and Berkshire gilts, bred. Also four young boars. O. P. Updegraff, Topeka, Kans.

PEDIGREED POLAND-CHINAS—No better anywhere; \$5 each. M. C. Hemenway, Hope, Kans.

MISCELLANEOUS.

SWEET POTATOES — Furnished to sprout on shares; no experience required; directions for sprouting free with order. Varieties: Golden Queen (early market potato), Red Bermuda, Vineless, Yellow Jersey, Yellow Nansemond. T. J. Skinner, Columbus, Kans.

THE BOSS FEEDER—Saves feed and is cheap; has no cleats to create filth; hogs can't wallow in it; has drop gate to shut animals out until some feed is in; the rest can be put in along the rear while eating. I sell farm and town-lot rights. Price \$1 on condition that purchaser marks his feeders "Patented Oct. 30, 1900." Address the patentee, Joseph J. Singley, Eldorado, Kans.

DOWEN POTATO DIGGER and Aspenwall Planter for sale cheap; in good repair; and 9 money makers for agents. Chas. L. Berry, Mystic, Iowa.

ALFALFA SEED — Attention Farmers: While dealers are getting a corner, preparatory to asking you 15 to 20 cents per pound, take time by the forelock and buy direct from a grower. Write for samples and prices, stating quantity wanted. E. G. Jones, Syracuse, Kans.

ST. BERNARD PUPS for sale. I have a choice litter now on hand. H. Vesper, 113 East 6th Ave., Topeka, Kans.

CHOICE SEED CORN—Early and late. Circular and sample free. J. D. Ziller, Hiawatha, Kans.

\$50 to \$100 PER MONTH-500 persons in the state of Kansas wanted to do easy and honorable work in their home towns and cities. Write at once, enclosing stamp for reply. The Legal Adviser, Girard, Kas

PEACH TREES-\$10 a thousand; wholesale lists. Nursery, Seneca, Kans.

WANTED—Alfalfa, Cane, Kaffir-corn. Highest market price. Bend samples. Kansas City Grain & Seed Co., Kansas City, Mo.

WANTED—Cane and Kaffir corn in car lots. Send samples and quote prices. McBeth & Kinnison, Garden City, Kans.

FOR SALE—Feed mills and scales. We have two No. 1 Blue Valley mills, one 600-pound platform scale, one family scale, and 15 Clover Leaf house scales which we wish to close out cheap. Call on P. W. Griggs & Co., 208 West Sixth Street, Topeka.

FALL OR WINTER BARLEY—Seed for sa have a very fine quality of this grain for seeding it should be tested in Kansas. Price \$1 per bush cars at Leoti, Wichita Co., Kansas. Address Je Beener, Leoti, Wans. WANTED—Alfalfa, red clover, timothy, English bluegrass, and other grass seeds. If any to offer please correspond with us. Kansas Seed House, F. Barteldes & Co., Lawrence, Kans.

WANTED—Every breeder in Kansas to become a member of the Kansas Improved Stock Breeders' Association. Send membership fee of \$1.00 to H. A. Heath, Secretary, Topeka, Kans., and you will receive the breeders' Annual Report for 1899.

BLOSSOM HOUSE—Opposite Union Depot, Kansas City, Mo., is the best place for the money, for mesis, or clean and comfortable lodging, when in Kansas City. We always stop at the Blossom and get our

SHEEP.

FOR SALE—220 one-half and three-fourths bred Shropshire ewes, 1, 2, and 3 years old, unbred and in good condition. Cleland & Benedict, Olpe, Kans.

THE STRAY LIST.

Week Ending January 10.

Lyon County-H. E. Peach, Clerk. STEERS—Taken up by D. J. Lewis, in Emporia Tp., one spotted red and white western steer calf, branded J on right shoulder, slit in right ear.

Also one red steer, 1 year old; no marks or brands. Taken up by D. J. Lewis of Emporia Tp. at \$15.

Greenwood County-C. D. Pritchard, Clerk. STEER—raken up by S. Goldsworthy, in Fall River Tp., one red steer, about 1 year old, branded 3 on right hip; valued at \$15.

Coffey County-W. W. Palen, Clerk. COW-Taken up by B. B. Harreld, in Neosho Tp. (P. O. Crandall), November 20, 1900, one 3-year-old cow, black and white, branded -S- on left hip.

Chautauqua County-C. C. Robinson, Clerk. MULE—Taken up by Solomon Gibbs in Belleville Tp. (P. O. Peru), November 25, 1900, one brown mule, weight about 700 pounds; valued at \$20.

Wabaunsee County-B. Buchli, Clerk. STEER-Taken up by G. S. Burt (P. O. Wabaunsee), December 15, 1900, one red steer, 1 year old, slit in end of right ear; valued at \$18.

Pottawatomie County—A. P. Scritchfield, Clerk.

HEIFER—Taken up by John Conroy, in Blue Tp., December 29, 1900, one small red dehorned yearling heifer, a little white in forehead, also a little white under belly and on end of tall; valued at \$17.

Douglas County-Geo. A. Flory, Clerk. HEIFER—Taken up by E. G. Woodward, one red heifer, 1 year old, both ears off; valued at \$18.

Ottawa County-F. D. Partridge, Clerk. STEER—Taken up by J. S. Fox, Buckeye Tp. (P. O. Bennington), one red and white steer, 3 years old, branded O S on left hip. Taken up on the 24th day of Novem-ber, 1900.

Montgomery County-D. S. James, Clerk. HOG-Taken up by T. C. Williams, Havana, Kans., December 24, 1900, one male hog about 4 years old, black valued at \$12.

Wilson County-C. W. Isham, Clerk. STEER—Taken up by John Peterson in Colfax Tp., November 6, 1900, one red and white steer, slit in right ear and dehorned; valued at \$25.

HORSE—Taken up by J. L. Roe, in Tallyrand Tp., December 7, 1900, one light bay horse, 15 hands high, 3 white feet, small slit in right ear, collar mark, blaze face. Labette County—k: H Hughes Clerk

Labette County-k. H. Hughes, Clerk.

Labette County—L. H. Hughes, Clerk. HORSES—Taken up by W. E. McCrum in Osage Tp., December 12, 1900, one black gelding, 16 hands high, white on forehead, white tip on nose, left hind foot white, ringbone on right and foot, about 11 years old; valued at \$5.

Also, one black gelding, 16 hands high, white star in forehead, some white on back, shod on front feet, 10 years old; valued at \$30.

Week Ending December 17.

Cherokee County-S. W. Swinney, Clerk. Cherokee County—S. W. Swinney, Clerk.
HORSE—Taken up by George Black, in city of Baxter Springs, Nov. 30, 1900, one black horse, white hind feet, sheared foretop, 9 years old, 16 hands high.
HORSE—Taken up by W. N. Newman, in Shawnee Tp., Dec. 13, 1900, 1 bay horse, 5 feet 4 inches high, white left hind foot, shod all around, 9 years old.

Clay County-J. H. Kerly, Clerk. BULL-Taken up by Hans Burglund, Dec. 28, 1900, one red bull, 1 year old, V cut in right ear.

Week Ending December 24.

Cherokee County—S. W. Swinney, Clerk.
MARE—Taken up by C. J. Stephens, in
Lowell Tp., 1 sorrel bald-faced mare, mane
worn with collar, left hind foot white,
about 14 hands; valued at \$25.
Woodson County—J. P. Kelley, Clerk.
STEER—Taken up by H. Lanber, in Belmont Tp., Dec. 17, 1900, 1 roan steer, 1
year old, dim brand on left hip; valued at
\$18.

"My stomach was affected by grip and I could eat nothing but crackers and milk. I began taking Dr. Miles' Nervine and Pain Pills and the trouble disappeared."—Mrs. J. Lindsey, Montrose, Minn.

When writing advertisers mention this paper.

In the Dairy.

Conducted by D. H. OTIS, Assistant Professor of Agriculture, Kansas Experiment Station, Manhattan, Kans., to whom all correspondence with this depart-ment should be addressed.

Needs of the Kansas Dairy School. A state dairy school should be the center of dairy knowledge. In order to hold this position the school must be equipped with up-to-date machinery. Not only that, but it must make comparative tests of different machinery and different methods of manufacturing dairy products. If, for instance, hy-oraulic separators are a fraud, as they have been proven to be, then it is the duty of a state dairy school to make known the fact and save hundreds if not thousands of dollars to the dairy farmers of the state, which would otherwise go into the hands of sharks. A separator that leaves from .3 to 1 per cent of butter fat in the skim-milk is a dear machine at any price. The farmer, if he has the knowledge, does not have either the time or the money to investigate these points. What is true of separators is also true of Babcock testers, cream ripeners, churns, butter-workers, and butter-printers. Where the dairy school tests these different utensils, the comparative cost of the test is very small.

One of the greatest needs of Kansas dairying to-day is a development of her cheese industry. Kansas is paying out thousands of dollars every year for cheese imported from other states. This cheese can just as well be manufactured upon our soil, with our own cows. It is true that considerable of the cheese that is made in Kansas is of poor quality, but this is due to a lack of knowledge of how to make, and especially how to cure a good cheese un-der Kansas conditions. Cheese can not be handled the same in Kansas as it is in the Northern States. The proper curing of cheese is almost entirely dependent on the temperature and the moisture of the curing room. Experiments are needed to tell us which is the best temperature and the right degree of moisture under Kansas condi-At present our Kansas State Dairy School is unable to inaugurate these experiments. We have the curing rooms, but not the funds with which to properly equip and operate them. Our progressive creameries are to-day furnishing their plants with refrigerating machinery. In this respect our dairy school is behind the creameries. It is greatly in need of a refrigerating plant in order to carry on experiments, both in cheese-making and butter-making. In order to become and keep our Kansas dairy school equipped with the latest machinery, the modest sum of \$5,000 is asked from our next legislature. This sum properly invested will undoubtedly save many thousand dollars to the dairy interests of the state. Without it our dairy school will be hampered, and when inquiries are received in regard to dairy utensils and dairy matters, we shall be obliged to answer "we don't know," because we have not had the opportunity to test or investigate. It is sincerely hoped that every dairyman who is interested in the success of Kansas dairying and Kansas dairy schools will see to it that his representative is not only informed, but urged to lend his influonce in securing the needs mentioned. D. H. O.

Testing for Quality of Milk.

Any one who has had the least experience in making butter knows that the amount of butter that can be made from different herds or from different cows in the same herd varies to a very considerable extent. Where the butter is made on the farm no one is injured by this variation, but as soon as the factory system came into vigue the necessity for some accurate method of determining the quality of milk became apparent, as it was obviously unjust to pay as much for 100 pounds of milk that would make only 3 pounds of but-ter as for milk that would make 4, 5, or even 6 pounds per hundredweight.

Chemical analysis, while accurate, necessitates delicate instruments, special skill, and considerable time, and would not be practicable in creamery work.

RE Gream Separators

are placed on ten days' approval and sold under strong guarantee. Capacities, 100 lbs. to 3000 lbs. per hour.

Hints on butter making and catalogue free U. S. BUTTER EXTRACTOR CO., 271 Orange St., Newark, N. J.

Cream guages were tried, but it was found that cream varied in composition even more than milk. After some 15 or 20 different methods had been tried, Dr. S. M. Babcock of the University of Wisconsin came forward in 1890 with a method that embodied the essential features of the others, but was so modified as to be the cheapest and simplest method yet devised.

The Babcock Test: The principal involved in this test is very similar to the principal involved in raising cream (milk in which are large proportions of the fat globules have been gathered together) by gravity. Water is some-times added to the milk to make it less sticky and thus allow fat globules, which are lighter than milk, to float to the top and form cream. With the the top and form cream. Babcock test concentrated sulphuric acid (H.SO.) is used in the place of water. Its effect is similar to water, only more intensified. The acid com-bines with all the portions of the milk except the fat. The mixture is then a great deal less sticky than when water is added and the fat comes to the surface much mare readily. If a test bottle be allowed to stand a short time after the milk and acid are mixed a layer of fat will be seen on the surface. If this be allowed to stand long enough nearly all the fat will come to the surface. But gravity is too slow for the enterprising creameryman, as well as the busy farmer, and to hasten and also to intensify the action of gravity a centrifugal machine is used which revolves the milk at the rate of 800 to 900 revolutions per minute for a 20-inch wheel. After separating the fat, hot water is used to raise it into the neck of the bottle where it can be read. Test lottles can be made and graduated for any quality of milk desired, but usually they are constructed for 17.6 cu. cm. (18 grams). The same bulk of acid is used as milk. Any one who will be careful, accurate and use a little ingenuity can operate a Babcock test.

Sampling the Milk: As a very small amount of milk is used for the sample, it is very essential that this sample shall represent an average of the total For this reason milk must be thorough ly stirred before sampling. This is best done by pouring several times from one vessel to another. A comparative test made by the agricultural college and the Manhattan creamery shows that there was a variation of .1 to .5 of 1 per cent between ordinary shaking and pouring milk from one vessel to another. If the milk is not thoroughly stirred the top will show too high and the bottom too low a test. Where milk is poured from the patron's can into the creamery weigh-can it is pretty well stirred. A test of this point was made by the agricultural college at the Manhattan creamery by samples before weighing, samples after weighing, samples from the bottom of the can, and samples after thorough stirring with a paddle. The test of these samples showed that just as good results were obtained before or after weighing as when stirred with a pad-dle, D. H. O.

The Farm Separator.

During the last few years considerable interest has been manifested along the lines of the farm separator, and judging from present indications considerable more interest will be manifested in the future than at present. At first, the hand separator was seriously opposed by a large number if not a large majority of creamery operators, and although opinions are changing there are still those who object to their introduction. But be that as it may, the fact nevertheless re-mains that the sales of the farm separators are on a rapid increase. Reports from supply houses tell us in some cases that the sales of hand separators are doubling every year. In other cases, where figures were not available, firms write that they are doing an increasing business in Kansas, and expect to do much larger the coming season.

The advantages of the farm separator are that the skim-milk is in better condition for feeding when the cream is separated immediately after milking. Less labor is required to care for a small quantity of cream than a large quantity of milk, and as the hand separator comes into more general use the expense of hauling will be materially reduced, while the territory of any one plant may be considerably increased. The objection raised against the system is the cost of the machine, the labor of operating and caring for them, together with the liability of the machine getting out of order in the hands of inexperienced operators, and the difficulty of getting all the pa-

trons to take first class care of the cream. In regard to trouble from inexperienced operators one supply house writes: "There is no reason why experienced any farmer with ordinary intelligence should not be able to keep a hand separator in perfect running order, and we are pleased to say that the great majority of them do so. However, there are instances where the separator is never in good order, but we think in each instance the same conditions will apply to every other piece of machinery owned by the same party. There is, as a rule, a little trouble when hand separators are introduced in a community but after the machines have been in use a few months we seldom hear any complaints, as the original purchasers have learned to care for and operate their machines, and whenever a new one is started, if anything goes wrong the user can invariably get all the information and assistance he requires from his neigh-

Another firm speaking of the same subject, says: "The amount of complaint in proportion to our sales is very small."

D. H. O.

Kansas Behind Missouri.

The dairy students of the Missouri agricultural college will have 50 registered Jersey cows and nearly 100 Holstein cows as material for judg-ing and selecting a dairy herd. In contrast to this excellent advantage the Kansas Dairy School has only one registered animal on the farm. Our students are asking for information upon the best breed or breeds adapted to Kansas conditions. They are anxious to study form and conformation of good dairy cows. Some of our students are kept from completing their course at our college for the reason that we have no facilities for practice stock judging. Kansas has excellent natural advantages for the development of the dairy industry. The crying need to-day is for a larger production of milk. One very important factor in increasing this production is the feed, but another equally important factor is the For the benefit of the 1,200 to 1,400 students that attend our agricultural college each year, for the benefit of our numerous visitors and for the benefit of the 12,000 readers of experiment station bulletins, the averages:

SAVE \$10. - PER COW

DE LAVAL CREAM SEPARATORS Prices \$50.-to \$800.-

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a steer will eat one-third to one-half bushel of corn per day, besides hay, to produce 2 pounds of beef worth 5 cents a pound here, while a good cow, as well fed, but not exactly the same, will make from 1 pound to 2 pounds of butter per day, worth 20 cents per pound? Or why will he put in a whole year to raise 50 acres of corn that will yield 35 bushels and sell at 15 cents, or yield 15 bushels and sell at 35 cents?

A dozen good cows, well fed, make \$500 or more a year, besides their calves, will furnish milk and butter and beef, which go a long way toward a good living. They will turn waste straw and corn-stalks into money and make good use of beet-tops and cab-bage leaves; they will trim your hedge fence and thrive at it. And besides all this, they will improve the farm they are kept upon. While a farm where only grain is raised to sell must or necessity become poorer and poorer unto the end of the chapter. They will pay the taxes when the corn fails or the hogs die of cholera. And they will pay you every month, or every week, for that matter, for their food and your labor. You don't have to trust them six months and then get nothing, as you sometimes do with a corn crop.

What a Few Unprofitable Cows Will Do.

With a herd of 28 common cows, such as compose the herd of the average farmer, it was found that there were four, or 14 per cent, that run us in debt for their feed, to say nothing about the other expenses of keep. If we charge each cow \$7.45 above cost of feed, as indicated in last week's FARMER, 25 per cent of the herd would be classed as unprofitable cows. Not only do this 25 per cent run us in debt for feed and labor, but they greatly lower the average income of the herd. This is shown in the following contrast of

	Milk lbs.	Butterfat lbs.	Value of products.	less cost of feed.
verage of herd, 28 cowsverage of 21 profitable cows	5,554 6,205	229.7 257.2	\$43.58 48.92	\$13.72 18.01
Difference	. 651	27.5	5.34	4.29

Kansas agricultural college should be equipped with at least a few good specimens of our leading breeds of live stock. Every man who is interested in advancing the dairy interests of the state can make himself useful at the present time by writing to his state renator and representative and urge them to see that the agricultural college gets enough appropriation to test pure-blood stock as well as scrubs. D. H. O.

Dairymen, Attention.

At the annual meeting of the Kansas Improved Stock Breeders' Association four of our leading breeders got their heads together and determined that the largest agricultural college in the world must have blooded stock. These men did more than talk. They put their words into action, and as a result the college will be a recipient of four first-class pure-blood beef animals (three Herefords and one Shorthorn) as gifts from the following gentlemen: Steele Bros., Belvoir, a Hereford; J. M. Foster & Co., Topeka, a Hereford; West & Son, Silver Lake, a Hereford; John Warner, Eureka Valley, a Shorthorn.

We may not have dairymen in the state who are able to perform an equally generous act, but there is not one dairyman but what can materially assist in bringing about an equivalent result, namely, write your senator and representative and impress upon their minds that the students of the agricultural college should have chance to see, study and pass judgment upon first-class, pure-blood dairy animals as well as beef. D. H. O.

What Cows Will Do. O. A. SEATON.

I believe every farmer ought to keep cows, and the more of the right kind the better. They will add to the com-forts of life; they will supply better food to eat, better clothes to wear; more books and papers and flowers, more happiness-which, after all, ought

to be the principal object of life.
Why will farmers feed steers when

From this comparison we see that if the 25 per cent of unprofitable cows had been eliminated from the herd the average yield of those remaining would have been increased 651 pounds of milk and 27.5 pounds of butter fat per cow. The value of each cow's products would have been increased \$5.34, and the receipts less cost of feed would have been increased \$4.29. Deducting from the last column in each of the above averages, \$7.45, the annual cost of keeping a cow outside of feed, we have a profit in the case of the 28 cows of \$6.27 cow over and above all expense, but in the case of the 21 cows we have a profit of \$10.56 per cow, an increase of 68 per cent. This shows not only one-quarter of the college herd were absolutely worthless as dairy cows, but indicates how it is possible for a comparatively few poor animals to lower the average of the herd in a way to make it seem that all the cows are un-

Sharples Cream Separators-Profitable Dairying.

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THOUSANDS of Dairy Farmers pronounce them as such.

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e standards, first CURRIE WINDMILL CO.,



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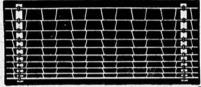
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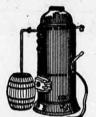
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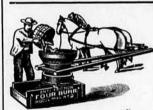
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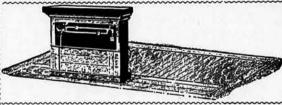


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We shall offer a grand lot of bulls and cows from the best American and English families. The Riverside Hereford Cattle Co. will sell 10 head of the celebrated Shadelands with us.

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WEDNESDAY AND THURSDAY, FEBRUARY 13 and 14. SHENANDOAH.

To Breeders and Farmers:

In announcing our closing-out sales of high class Shorthorn breeding cattle and Poland-China swine we may state as the sole reason that of advanced years on the part of one and ill health in family of the other. This is our first public sale; all our surplus stock has found a ready private sale.

There are about 75 head of cattle and about the same number of hogs-separate catalogues. Fifteen daughters of imported True Briton in the sale. All cows and heifers of breeding age safe in calf or with calf at foot. The fine Cruickshank bull Scotchman 137020 in service. Both Scotchman and imported True Briton are included in sale, together with a fine string of younger bulls. Catalogues sent to all who ask. Sale takes place at farm, two miles from town. Stop at Delmonico Hotel as our guests. Free conveyance to farm.

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Selling latest key-ring out; big sellers; the sea-son's hit; celluloid attachment for your name; 22, 686 sold last month; one agent made \$86.00 in three days. Write us at once before others in your town get ahead of you, if you want to be my agent send 10c (silver) for sample and terms.

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"Grip made me very weak and nerv ous with tightness of chest and headache. Dr. Miles' Pain Pills and Nervine gave me quick relief."—Mrs. Clarinda Butler, W. Wheeling, Ohio.

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At Kansas City Stock Yards New Sale Pavilion, Thursday, February 14, 1901.

The offering will consist of the entire herd of S. M. Winslow, Oskaloosa, Mo., headed by the prize-winning herd bull, Basanio 6441. In this division there will be 20 Crusader cows; all extra good ones. Phil Grace, of Rose Hill, Iowa, will offer 8 bulls, the choice of his last year's crop, and H. H. Harris Jr., Marshall, Mo., 3 bulls, sired by the champion bull, King Hensol. .. Sale will begin at 10 o'clock a. m.

MOR CATALOGUES, FRANK B. HEARNE, Manager, Independence, Mo. AUCTIONEERS: COL. J. W. SPARKS, and COL. W. A. WHITE.

WHEN WRITING TO OUR ADVERTISERS PLEASE MENTION THE KANSAS FARMER.



Columbus Herefords

Herd headed by COLUMBUS 51875, Hestod 17th 56467, and Weston Stamp 15th 108353. Columbus is the sire of the \$7,500 Dale, the \$5,060 Columbus 17th, the \$2,000 Columbus 12th, the \$1,250 Viola. Five of Columbus get, of our breeding, sold for \$7,140 or an average per head of \$1,428. Young stock of both sexes for sale sired by Columbus, and Hestod 17th.

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155 HEAD FOR SALE—Consisting of the Imported herd buil, Sentinel, 7 2-year-old bulls, 73 bulls from 8 to 16 months old, 60 yearling heifers, and 10 cows. - - - - -

MY ANNUAL SALE—Will be held at Kansas City in connection with W. S. Van Natta, and Scott & March February 26 to March 1, 1901, when 160 head will be sold from the three herds at auction.

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BOTH SEXES, IN LARGE OR SMALL LOTS ALWAYS FOR SALE

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GALLANT KNIGHT 124463 in service. Females are pure Scotch and Scotch-topped on the best American families. 100 head in herd. A choice lot of young stock for sale. Correspondence and inspection invited.

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THE SCOTCH BRED BULLS

Lord Mayor 112727, and Laird of Linwood 127149

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

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