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TOPEKA, KANSAS, THURSDAY, JUNE 13, 1901.

ESTABLISHED IN 1863. \$1.00 A, YEAR.

Breeders' Directory

SWINE.

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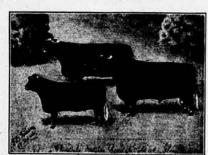
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ORD MAYOR was by the Baron Victor bull, Baron Lavender 2d, out of Imp. Lady of the Meadow, and is one of the greatest breeding bulls of the age. Laird of Linwood was by Gallahad out of 11th Linwood Golden Drop. Lord Mayor helfers bred to Laird of Linwood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

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E. M. Williams, Manager.

G. M. CASEY, Owner, Shawnee Mound, Henry County, Mo.

Agricultural Matters.

INSECT ENEMIES OF GROWING GRAIN.

Of all the insect enemies of growing grain the greatest interest is now centered in three, viz., the Hessian fly, the chinch bug, and the wheat plant-louse. These have been studied with especial care by Mr. C. L. Marlatt, first assistant entomologist of the Department of Agri-The results of his original investigations and studies of the work of others on the Principal Insect Enemies of Growing Grain, are given in Farmers' Bulletin No. 132. It will pay any farmer to write the Department of Agriculture, Washington, D. C., for a free copy of this bulletin.

Below is given excerpts as to the three enemies now most in mind:

Preventative and Remedial Measures, for Hessian Fly.

It is practically impossible to save a field once severely attacked by this fly, and under such circumstances it is better to plow the wheat under deeply and plant to corn or other spring crop.

In cases of mild infestation, the best procedure is the prompt use of fertilizers, which may enable the wheat to tiller sufficiently to yield a partial crop. Pasturing in fall of early sown fields is also recommended, and may do some good by reducing the numbers of

Somewhat in line with pasturing of early sown fields is an interesting experiment made in the spring of 1900 by Mr. E. P. McCaslin. Finding that the flies were ovipositing abundantly on wheat which had reached a height of 6 or 8 inches, he conceived the idea of cutting it off closely with a mowing machine as soon as all the eggs of a spring brood had been deposited, keep-ing close watch to determine the proper moment. The theory was that the severed tops of the wheat with attached eggs would dry up in a day or two, and the larvæ, not being able to move freely except down the green leaf blades, would fail to reach the live stubble. Wheat so cut threw out new stalks and gave every promise of a good yield, but unfortunately for the success of the experiment, the fly was so extraordinarily abundant everywhere in the spring of 1900 that the stubble was reinfested and the experiment came to naught. Nevertheless, under a less extraordinary instance of general fly infestation, some benefit might reasonably be expected from the procedure, and it is perhaps worthy of further trial.

By some such means as the above a crop of wheat may be partly saved, but in the main the measures of really practical value against this insect are, of necessity, chiefly in the direction of preventing future injury. These are all in the line of farm methods of control, and are arranged in the order of

importance as follows:

Late planting of winter wheat.—As already indicated in the paragraphs on habits and life history, late planting of winter wheat is undoubtedly the best and most practical means in nor-mal seasons of preventing damage in regions where infestation is to be anticipated, and this is true in spite of the failure of this means of control during the season of 1899-1900. The most that can be advised under this head, however, is to give a general statement covering normal years and climatic conditions. The actual date after which planting may be safely made must necessarily be fixed for each locality separately, and be subject to yearly modification to meet varying seasoned conditions. In a general way, to avoid fly injury, planting should be made in the northern winter wheat districts after the 15th or 20th of September, and in the more southern disbetween October and 15 the right time be selected, neither early enough to be attacked by the fly nor yet so late as to cause danger of winter killing, much of the damage in normal season to winter wheat from this insect may be avoided.

Burning stubble.—The fact has been noted in the life history that the second brood develops in the lower joints of the wheat and is left, for the most part, in the field in the flaxseed state at harvesting, all these individuals may be destroyed by promptly burning the stubble. Burning may be more easily effected if a rather long stubble be left, and especially if it be broken down by rolling. If the burning of the stubble be neglected until the rank

burning over as soon as the weeds and grass dry sufficiently. Careful burning will very largely prevent an abundant fall brood of flies, and may be supplemented by burning all screenings the wheat if thrashing precedes the

fall appearance of the fly.

Plowing under stubble.—In line with burning, and of nearly equal impor-tance, is turning the stubble under by deep plowing, and afterwards rolling the field to compact the earth and prevent any flies which may mature from issuing.

from issuing.
Rotation of crops.—The regular practice of a system of rotation in the growth of crops is of the utmost impor-tance in avoiding damages. Its value may be offset at times by invasion from neighboring fields of wheat on other farms, but usually comparative freedom from attack will result and the benefit will extend to the other crops coming in the system adopted in checking the insect enemies of these at

the same time.
In seasons like that of 1899-1900, and possibly also 1900-1901, where the fly is very generally present, rotation of crops may fail very largely in being protective, and it may be even neces-sary to abandon wheat planting for a year over an entire county or state Undoubtedly the Hessian fly can be starved out almost completely by the abandonment of the culture for one year of the crops in which it breeds, namely, wheat, rye, and barley, and occasions will probably arise again when this course will be advisable. To gain the full benefit of such a procedure all volunteer wheat, rye, or barley must

Trap or decoy plantings.—One of the earliest preventives recommended and one of considerable value is the early planting of narrow strips of wheat to act as decoys to attract the flies with the object of turning the infested wheat deeply under with the plow in late fall. This procedure will greatly reduce the numbers of the pest and should give greater immunity to late-planted

Destruction of volunteer wheat.—The supplemental fall brood antedating the principal brood will come to nothing if all volunteer wheat be plowed under or destroyed within a few weeks after its appearance. This is of especial value in the North, where spring wheat is grown, and where the brood developed on the volunteer wheat may be the principal means of carrying the insect through the winter.

Growth of resistant wheats.—The importance of selecting varieties which are less injured by the attacks of the fly will be at once apparent. Such wheats are those having coarse, strong, stems, and varieties which "tiller" free-ly or develop numerous secondary shoots. Among such wheats are the Underhill, Mediterranean, Red Cap, Red May, Clawson, etc. No wheats however, absolutely "fly proof."

Preventatives and Remedies for Chinch Bugs.

For the practical control of the chinch bug many suggestions have been made, some of which have a good deal of utility. These are considered in the order of their importance.

(1) Burning over waste land.-The hibernating habit of the chinch bug suggests at once the advisability of burning over and clearing up all waste land where the insect would be apt to congregate for over-wintering. The burning of grass lands, especially the wild grasses which have the stooling habit, should be done early in the fall so as to expose the chinch bugs that may not be killed by the flames as long as possible to the unfavorable action of the cold and freezing of winter. All the rubbish in the fence corners and hedge rows should be raked out and burned and as little material left as possible for protection of the insects. Cultivated meadows may be safely burned over when the ground is frozen without injury to the grass.
(2). Trap crops.—The planting of

trap crops has been suggested and may occasionally be of some value. Of this nature is the early plantation of patches of millet or Hungarian grass or spring wheat to attract the chinch bugs in the first spring flight. Such land after becoming infested should be turned under with the plow and not planted until late in the season to other crops. The eggs thus buried will hatch in the soil, and, as a rule, the young insects will find plenty of avenues of escape; but if there be no near-by crops, they will ultimately perish, since they are growth of weeds has sprung up which usually follow harvest it will be well to run a mower over the fields, cutting off the stubble, weeds, and grass as close to the ground as possible, and

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get him on the road before you could hitch up to go after him. Does the work in five minutes that might have taken five hours —and saves a life.

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It's yours. You own it for life without making any further payments. Not controlled by any trust. No rent to pay. Wire and poles at lowest prices.

AGENTS - WANTED —to solicit farmers in neighborhoods not already taken. Thousands in use. Sell wherever shown. Best thing for the farmer ever invented. Write for special terms to agents, booklets, etc.

Send us your name and that of your nearest neighbor and the shortest distance from your house to his and we will send you full particulars and facts on Telephone construction worth while knowing.

KELLOGG SWITCHBOARD & SUPPLY CO., 8. Green St., Chicago.

(3). Rotation.—If a system of rota-tion could be adopted which would entirely diassociate small grains from corn, very little damage from the chinch bug would ever be experienced, at least to the latter crop. Following out this idea would mean the planting of a farm to corn one year and to wheat and small grains the next or some similar system of rotation.

(4). Plowing as a check.—In checking the midsummer migrating bugs some good may also be done by turning under the first rows of corn or other crop attacked. To have any practical value, however, the plowing must be done very deeply, or many of the bugs will escape the bugs will escape.

(5). Spraying.—The first—rows attacked by the bugs may also be sprayed with a very strong oily insecticide, such as kerosene emulsion—a mixture strong enough even to kill the corn itself and the bugs along with it.
(6). Protecting furrows.—The mak-

ing of protecting furrows, as recom-mended for the army worm, is also ap-plicable to the chinch bug. The bugs which collect in the furrow may be killed either by dragging a log along or by thoroughly wetting with the kero-sene and water mixture.

(7). Coal-tar barriers.-A good deal of effort has been made in some places to protect fields by placing about them lines or barriers of coal tar. Where this is done the line of tar must be renewed several times a day. At inter vals along it holes may be bored, in which the bugs will accumulate and may be destroyed. All that is necessary is to put a single straight line of tar in front of the migrating bug. And make holes on the side of attack with a post auger at distances of 8 or 10 feet close to the tarred line. Various other forms of barriers will easily suggest themselves, such as putting a line of boards about a field and smearing it with tar or combining the tar with the furrow method.

Promptness and vigilence are the essentials in any of these remedial

(8). Control by fungous diseases .great deal of work has been done of late years in the use of various fundiseases as a means of controlling the chinch bug. It was early ob-served that the chinch bug was frequently exterminated by a disease, and the idea naturally suggested itself that this disease could be collected and disseminated at the proper time and result in quick riddance from this pest. Appropriations for experimentation with this disease have been made by

shot of all this work has been to show that this agency of control is not of very great value. In other words, as already pointed out. unusual chinchbug increase and damage are characteristic only of reasons of drought, and, unfortunately for the use of the disease mentioned, they are propagated successfully and are effective only under conditions of considerable dampness or following a wet period. The very conditions, therefore, which make the disease useful are inimical to the chinch bug and, as a rule, exterminate it without the artificial introduction of the disease germs. In fact, it seems to be pretty well established that the dis-ease occurs very generally, doubtless attacking other insects besides the chinch bugs, and whenever the weather conditions are favorable it develops itsen and accomplishes the destruction of the chinch bug without the necessity of artificial introductions. It is doubtless true that occasionally when the disease is introduced just at the leginning of a rainy spell it may take heid of the bugs a little more quickly and effect their extermination more promptly than apply the page that the case heid was the case and a cartinature of the case heid as a cartinature of the case would have been the case had no artificial infections been made. In the main, however, it is scarcely worth while to bother with or rely on the introduction of this disease. If suit able climatic conditions intervene, the disease probably will itself develop and the chinch bugs will disappear, If, on the other hand, droughty conditions prevail, the introduction of the disease will be of no service.

The immature bugs seem to be especially susceptible to the action of this disease, the mature insects being much more rarely affected by it.

Summing up the subject of preventives and remedies, it may be said that the ones of real value are the clearing of farms and adjacent lands of rubbish and deadened grass by burning, the adoption of a rotation of crops which will separate the small grains from the later-ripening crops such as corn and late-sown millet, and the adoption of the steps indicated to stop the migrating midsummer hordes.

The Wheat Plant-Louse.

This plant-louse is not one of the principal insect enemies of the wheat crop, but in some years, fortunately widely separated, it multiplies in enormous numbers and over wide regions, and becomes almost as destructive and occasions almost as much loss as does the Hessian fly or the chinch bug. Such periods of extensive damage were witnessed in 1861 and again in 1899. various states, notably Illinois, Kansas, and Wisconsin, and the value of this method of control has been thoroughly tested by trained experts. The up-

ANGORA GOATS FOR SALE.

I have for sale five or six double-deck cars of goats, consisting of Recorded, High-class, Medium-class, old fashioned goats, about one hundred head of choice young bucks, and also two double-deck cars of fine Angora wethers, that are located thirty miles south of Kansas City. I can sell you any class of goats you may want at a reasonable price.

W. T. McINTIRE, Agent,

Kansas City Stock Yards.

Kansas City, Mo.

250 High Grade Angora Does

All pure white, thin pendulent ears.

Will sell very cheap if taken soon. W. T. McIntire, Live Stock Exchange, Kansas City, Mo.

subsequently explained, are not real

Origin.—This insect is believed to be of European origin, and is the Siphono-phora avenæ of Riley and other authors, a common wheat pest of the Old World. There are, however, at least two other forms of plant-lice of similar habits in this country, and one of these is believed to be a native American species closely allied to the European one under consideration. The question of its origin, however, does not have much practical bearing on its present econo mic status in America, since it now occurs on this continent practically wherever wheat is grown. One of the other plant-lice occurring on wheat, Nectarophora, granaria Kby., known as the grain plant-louse, is sometimes nearly or quite as bad a pest as the species under discussion. In fact, almost any plant-louse that normally attacks the various wild or cultivated grasses or even other plants may occasionally occur in wheat. The habits of these other species which may sporadically appear on wheat are substantially identical with the one under stantially identical with the one under discussion, and they need not be sep-arately considered. Even the apple-tree plant-louse, Aphis mali, is occasionally found in wheat fields, and this has led to an erroneous belief in some quarters that this insect and the wheat-louse are the same species and that the win-ter eggs of the former, which often thickly cover apple twigs, develop the spring generation of lice which appears on wheat in April. The absurdity of this point of view is evident from the fact that the apple-tree aphis and the wheat-plant-louse belong to distinct genera.

When it appears.—The wheat plantlouse appears on winter wheat in September in the form of wingless which rapidly reproduce themselves, going through several generations. It occurs about the base of the wheat and on the roots, remaining in evidence as late as September 30. During the fall this louse does little damage to wheat growing in good, fertile soil, and after the lice leave, the plants, as a rule, soon recover. On poor soil, however, wheat may be seriously injured at this season. The method of over-wintering has never been discovered, but it seems probable that it hibernates on the wheat in the egg stage. At any rate, the wingless female lice reappear on the wheat early in April and remain in evidence, passing again through many genera-tions, until harvest. Throughout the spring and early summer it works on the stems and leaves above ground. Later it moves to the wheat heads and very frequently these are simply filled with clustered masses of lice, which now assume a brownish-orange color.

Natural enemies.—Fortunately this species has many natural enemies, including various insect-feeding beetles and flies and also true internal parasites (minute four-winged flies). These predaceous enemies and parasites in connection with other natural agencies, particularly unfavorable weather conditions, are ordinarly sufficient to prevent undue mustiplication.

Cause of outbreaks.—The reasons for the periods of excessive abundance or occasional outbreaks of this insect are not always easy to point out, but as a rule such outbreaks are due to the occurence of unusually favorable climatic conditions. A rainy and fairly cool spring and early summer is favorable to the plant-louse, because, while not checking its own multiplication to any degree, and, in fact, favoring it, nditions described prevent its predaceous and parasitic enemies from operating to any extent. As a rule, therefore, the drier and warmer weather commonly preceding harvest enables these natural enemies to gain the upper hand and quickly exterminate the lice, and this is commonly accomplished soon enough to prevent material damage to

No Remedy.

No remedy is possible in case of attack by this insect, since direct appli-cation of insecticions to growing grain is out of the question, and there are no mechanical means of destroying the lice. One can only await the providence of the weather conditions and the action of natural enemies. As already pointed out, in the great majority of seasons, and often when the lice appear in the spring in numbers, unfavorable weather and the natural enemies effectually prevent appreciable damage.

Poisoning Grasshoppers.

A writer in the Live Stock Farmer, of Dodge City, Kans., relates the follow-

ing experience: In the summer of 1896, the grasshoppers were very numerous in our section and it became necessary to do something to check them. Some of my neighbors adopted the coal oil Hopper doser, and destroyed large numbers of them, but the expense was so great that I did not think it paid. So the question came up what other method could be adopted that would destroy As is well known, insects are easily poisoned and as grasshoppers are insects, I concluded to try it. So I procured parisgreen and a spray pump, fixed up a coal oil barrel by fastening the pump in it and made a cover to avoid splashing the mixture out, and filled the barrel with water. I used one pound of parisgreen to fifty gallons of water, this is rather strong, but calculated that the poision was perhaps adulterated, so used more than necessary if it had been pure.

Then with a man to work the pump and driver, we drove around the field, twenty acres, twice, around the edges only. The hoppers were very num-erous, but had not yet penetrated to the middle of the field to any extent, so we didn't think it necessary to spray the whole field. The hoppers at this time were about half grown, and had not got to the flying stage yet. Being very busy I didn't go to examine the field until the third day, when I was surprised and delighted to find nearly an entire absence of grasshoppers, and what was puzzling to me, but few dead ones were found. They had left the field and never came back, having evidently died somewhere else.

I have found this characteristic of parisgreen, that it first makes the victim sick, with a tendency to movement, it is so with mice, potato bugs and I also noticed it with the army worm which I dosed with the poision last spring, when they invaded my potato patch, checking them immediately.

Now in regard to the effect of the poison on the alfalfa. It would be dangerous to pasture the alfalfa while the poison was on, but the first rain will wash it off. In cured hay I estimated that an animal would have to eat about 1,000 pounds of hay at one time to get enough poision to kill it, provided none had been washed off.

This method is certainly worthy of more extended trial, it is inexpensive and quickly applied. It is essential to have a good spray pump, one that will throw a fine mist-like spray; a good one costs about five dollars.

Farmer Drives an Automobile.

"The Ranch" published at Seattle, Wash., has the following: Milton, Oregon, probably has the only farmer in the Northwestern states who rides to town in an automobile. Joseph West recently purchased one of these horseless carriages and is now making daily trips to town from his farm, while his horses stay in the barn and munch But it is probable the horses will still be useful in occasionary pulling the automobile out of mud holes.

Mr. West is a prosperous farmer, who owns a large wheat ranch on the Walla Walla river, a few miles above Milton.

'Neglected" Farms in New England. The Rhode Island State Board of Agriculture has issued a catalogue of 'Rhode Island Farms for Sale," to which

the following is the introductory: Several years ago the State of Massachusetts, alarmed at the depopulation of farming communities-at the increase of abandoned farms so-called—issued a descriptive catalogue of farms neglected or not tilled. The result ex-ceeded expectations; farms untilled heretofore began to bud and bloom, and, as formerly, the beneficent earth, under aven and the industry of man, brought forth of its abundance. Connecticut and other States in some ne nurture of

form followed the example of Massachusetts, and, judging by successive editions of descriptive catalogues or similar publications, the effort to re-claim lost farms and add them to the productive area has been effectual.

While Rhode Island is not distinctivewhile know that a state with any farms and farmers, some of them as thrifty as any in the land, are found within its territory, and a large number of interest of the state of habitants derive all support directly from the soil; and, hence, agriculture in Rhode Island, though comparatively limited in extent, presents as many problems, naturally similiar, as that of other States.

At all events, neglected or untilled farms are found in every county of the State; and, as continual inquiry is made this catalogue is sent forth with the hope that the farms now non-produc-

tive and gradually yielding to the encroaching forest may again contribute to the welfare of the commonwealth.

Some of these farms, left to decay and weeds, were once the pretentious homes of happy and contented house-They were not deserted because they were non-productive; death in many cases was the sole cause. After the death of parents, the children, already settled and otherwise employed elsewhere, the old home became the abode of strangers, or, worse, left to decay. And most of these farms, if not every one, will yield a better living than thousands in cities are compelled to accept; and a living, bare and scant as it may be, on a farm, is better than a similarly contracted living in the city.

At a meeting held on November 11, 1899, the State Board of Agriculture voted: That the secretary be and is hereby directed to prepare a list or catherens of the secretary be and is hereby directed to prepare a list or catherens of the secretary because of the secretary because the secretary because the secretary of the secretary because the secretary alogue of abandoned or neglected farms

for general distribution.

The Commissioner of Industrial Statistics, in making the State census of 1895, collected data showing the location, average assessed value, and ownership of untilled farms. tails, transferred to the Board of Agriculture, were made the basis of the more extended canvass of which this catalogue is the result.

In some parts of the State, since the census of 1895, the number of neglected farms has decreased, owing to purchase of land, contiguous farms, for pasture or game preserves; while in other places the number of farms abandoned, as far as occupation and tillage are concerned, has increased.

Mr. John H. Davis, formerly chief clerk of the Bureau of Industrial Statistics, and also chief clerk of the State census of 1895, was engaged to make the canvass. He has visited every farm listed in this catalogue, and made report from personal observation and in-

The catalogue will be sent post paid to any address, and the Board of Agriculture, through its county commis-sioners and other officials, will aid as far as possible all persons who wish to visit any farm with the intention of hiring or buying.

Using Hay Caps.

During the rainy harvests the use of hay caps have paid their cost in one season. That they have not come into use on more farms is because of cost and lack of knowledge of their usefulness. Some farmers refuse to invest in them because of the cost, claiming produced passable hay, while the un-covered was worth but little. These caps were made of five-quarter cotton cloth, cut square, with little loops at the corners through which was run a slim wooden pin into the cock. A farmer who has used them for seven years says his hay is worth one or two dollars per ton more than his neighbor's and cites the health of his animals as proof. He mows his grass without consulting the weather predictions. All the hay is put in cocks in the evening and capped to keep off the dew. His covers are made out of stout unbleached cotton sheeting, 45 inches wide, cut into squares, and a loop or bottonhole worked into each corner through which a wooden pin may be stuck into the hay cock. They are something like a cotton umbrella. The first dash of rain would spatter through, but this would last only a moment, and the covering in a short time would be "turning the water."
The cost of these covers at this time might be ascerta local merchant.—Farmers' Guide.

Telephones in the Country.

The movement from the rural districts to the cities, which became so noticeable a few years ago, was generally attributed to the increased comforts of life in cities as distinguished from life in the country.

If certain inadequacies of condition between town and country existence can be obliterated many persons, it is thought, now living in the city may be induced to go back to the farm.

No two agencies are doing more to "urbanize" the rural districts than the telephone and the electric car, and they are doing it in the most desirable sense

A long stride has been taken in the direction of obliterating the inconveniences of country life when communi-cation between widely separated members of the human family is made easy

in all sorts of weather. In large areas in the central, middle western and castern states the telephone is now serving the farmer in his daily ness.

A Boston paper describes how, in one county in Massachusetts, farmers four years ago started a company with a capital of \$12,000, which now has 150 miles of wire, 2,000 patrons, and rates as low as \$6 a year for original subscribers.

The farmers of Montgomery county, Indiana, chipped in and raised enough money to buy a switchboard. They then bought their own telephones and helped to erect the wires required in their respective neighborhoods. By each one paying an initiation fee or \$3 and a monthly fee of 25 cents, they manage to keep the lines in repair. The tolls from non-subscribers pay the salary of the person who operates the switch-

By this arrangement, 40 towns are served, with 6,000 telephones, at a small cost to the farmers composing the com-

Not only is business for the country people facilitated by this method, but sociability is promoted, the doctor is made accessible, intercommunication between young people in all sorts of weather is made easy, and life moves along smoothly, conveniently and pleas-antly.—Kansas City Times.

When to Cut Alfalfa.

A Kansas City paper reports the following remarks by Mr. H. K. Eberly of Wichita:

"The dry spring made many of the farmers and feeders fear that the alfalfa cutting would result in but a poor yield, but the returns are above the average, both as to quality and to quantity. I cut over 40 tons of it on a 20 acre patch, near Valley Center, a short time ago. The cutting of alfalfa illustrates the value of having advice from the agricultural station. It proves that farmers do not get as much knowledge by experience as a scientific study of agriculture will give. We had been accustomed to cut our alfalfa as late as possible, or rather wait until it was in full blossom, thinking that in that condition the plant would have the highest per cent of nutriment in it for stock. Secretary Coburn of Kansas, in one of his bulletins through the press, said that the alfalfa should be cut when about 1-10 in blossom as at that stage it furnishes the highest per cent of protein, while the full blossom was less nutri-tious. It did not take all of the farmers they will not pay. Others use them in my section long to get on to the because it makes for them a saving in secretary's advice, and we have found putting up the hay. One farmer who has 100 hay caps that cost him \$40, our crop of alfalfa a litter earlier, what claims they saved him \$20 the first season. He had 130 cocks standing out I conducted a little experiment on my the act of the rest in a six days' storm. The ones covered own account as to the value of the produced passable hay, while the unnew cut alfalfa as a feed, and found that by using this spring's crop with less corn, I made a better gain in my cattle flesh than when I used the old hay and a larger quantity of corn. If farmers and stockmen who raise their own feed, would take the advice of the board of agriculture secretary in his bulletins, it is my opinion that they could get a lot more out of their land

than they now do." The reporter got the experiment station and Secretary Coburn mixed up a little in the above. The bulletin alluded to was issued by the station, while Secretary Coburn has written an admirable book on alfalfa. But Mr. Coburn is a regent of the Agricultural College and Experiment Station, and there is no conflict of authority in the publications which have eminated from Mr. Coburn's office and from the station, and there will be no jealousies aroused. The correctness of the main point as to cutting alfalfa when it commences to bloom is becoming better understood with each recurring harvest. Mr. Eberly's indorsement of the advantages of making use of the knowledge acquired by the station experiments should lead to a wider reading of the station bulletins

Important News!



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and P. O. address on a card and we will give you some information about Wagons that will beneyou greatly. DON'T BUY ONE

until you hear from us. We want name and P. O. address of every Farmer and Teamster in the state. Address THE TIFFIN WAGON CO., Tiffin, O., or 1203 Union Avc., Kansas City, Mo.

The Stock Interest.

THOROUGHBRED STOCK SALES.

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

October 7, 1901—Newton Bros., Duroc-Jersey swine, Whiting, Kans.
October 8-10, 1901—American Berkshire Association Sale at Kansas City.
November 21, 1901—Ernst Bros., Shorthorns, Tecumseh, Neb.

December 10, 11 and 12, 1901—Armour-Funkhouser,

Herefords, Kansas City. December 13, 1901—H. C. Duncan, Shorthorns, Kansas January 28 to 31, 1902, for Sotham's Annual Criterion Sale, at Kansas City.

Baby Beef at Manhattan.

EDITOR KANSAS FARMER:-In the latter part of October 1900, the Kansas State Agricultural College, Manhattan, put into the feed lots 130 head of calves that had just been weaned. They were divided into nine lots to test the value of alfalfa hay, prairie hay, corn, Kaffircorn and soy-beans in the production

of baby beef.
Sixty head of heifer calves were purchased in the Kansas City Stock Yards. They weighed an average of 418 pounds each, cost \$4.25 per 100 pounds at the yards, and cost an average of \$18.25 per head delivered in the college feed These were range calves, grade Shorthorns, Herefords and Angus. Fifty head of grade Herefords were pur-chased of farmers near Manhattan, which had been kept with their dams through the summer in small pastures. Twent head were mixed bred calves that had been purchased around Man-hattan when born, and had been raised at the college by hand, 10 being raised on creamery skim-milk and 10 on whole

The calves were vaccinated to prevent blackleg. Without this safeguard, we should not have dared to undertake

the experiment.

All lots were fed twice daily all they would eat. Water and salt were always before them, and they were sheltered in common board sheds open to the south. The yards were fenced with woven wire

The calves were fed seven months with the following results:

RESULTS OF SEVEN MONTHS' FEEDING.

FEED.	Average gain per head lbs	Grain per 100 lbs.	Hay per 100 lbs.	Cost for each 100 lbs. gain
Alfalfa hay and corn Alfalfa hay and Kaffir-corn,	407 379	470 524	544 613	\$5.54 5.77
Prairie hay, corn % and soy- beans %	378	532	495	5.40
Prairie hay, Kaffir-corn % and soy-beans %	328	592	538	5.69
Skim-milk calves, alfalfa hay and corn	440	438	438	4.88
Whole milk calves, alfalfa hay and corn	404	223	410	3.24
The comm cost 10 o	anta	-	h	hal.

The corn cost 40 cents per bushel; Kaffir-corn 38 cents; soy-beans \$1 per hundred pounds; alfalfa hay \$8 per ton; and prairie hay \$4.50 per ton. At the close of the experiment, May

At the close of the experiment, May 27, the entire lot averaged 800 pounds per head in the college feed lots. The shrinkage in shipping was three per cent. Thirty-two steers averaged 838 pounds and sold at \$5.40 per 100 pounds, 74 heifers averaged 758 pounds and sold at \$5.35, and 18 heifers averaged 741 pounds, and sold at \$5.15. Six head of heifers went as springers. heifers went as springers.

THE FEEDS.

Alfalfa hay and corn gave the greatest gains followed by alfalfa hay and Kaffir-corn. At all times through the seven months' feeding the calves fed alfalfa hay appeared to be in the best condition and they finished the best. The corn and Kaffir-corn were fed whole for a little over half the experiment and

then were ground for the finish.

With the first four lots as given in the table, prairie hay shows a lower cost for 100 pounds of gain than alfalfa hay, profits of dairying. but the prairie hay was purchased at \$4.50 7 or ton, an average price, while alfalfs hay cost \$8 per ton, double the usual price at Manhattan. If the alfalfa hay could have been purchased at the ordinary price, it would have shown the cost of producing 100 pounds of gain at least \$1 less than when prairie hay

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T e soy-beans balanced up the prairie hay and corn and Kaffir-corn helping to secure good gains with these feeds. though not as good as were made by

Kaffir-corn did not show as good gains as corn, but the calves did well on it and it will be a profitable grain to grow on upland and in the dry regious of the west for feeding baby beef.

FEED REQUIRED.

The remarkable feature of this ex periment is the small amount of feed required to make 100 pounds of gain.

College reported making 100 pounds gain on thousand-pound steers with 718 and 780 pounds of corn. Many old feeders wrote us that they could not make such gains with so little feed. Professor Henry reports that he finds the average in a large number of feeding experiments with steers to be 100 pounds of gain for 1,000 pounds of grain and 500

pounds of roughage.

With the exception of one lot, these With the exception of one lot, these calves averaged 100 pounds gain for from 438 to 592 pounds of grain and 438 to 613 pounds of hay. The calves raised on whole milk by hand made the almost incredible gain of 100 pounds for each 223 pounds of corn and 410 pounds of alfalfa hay, less than one-fourth the usual amount of grain required by a fattening steer. fattening steer.

The whole experiment shows strongly how much less feed is used to produce a given amount of beef on calves than on older animals.

HIGH PRICES FOR HEIFERS.

These calves were put in the feed lots at weaning time and were probably a little over a year old when sold in Kan-sas City, May 29. The 32 steers sold at \$5.40 and brought an average of \$45.29 each, 74 of the best heifers sold at \$5.35 and brought \$40.60 each, and the 18 poorest heifers sold at \$5.15 and brought \$38.20 each. All the steers were home bred while 60 of the heifers were range bred.

For equal weights and quality the packers will pay as much for fat year-old heifer calves as they will for steers of the same age, and this is the only time in the heifer's life when she will bring as much pound for pound as a

The prices secured for these year old heifer calves were fully as great as would have been secured if they had been kept under usual conditions and marketed two years later.

HOME GROWN STOCK.

In every case, home grown stock made the best gains. In the first four lots there were in each lot fifteen range calves and five calves that had run with their dams in small pastures under ordinary farm conditions. The home grown calves made an average gain per head of 399 pounds, the range calves 369 pounds.

In three lots that were fed alfalfa hay and corn, range calves gained an average of 396 pounds each; calves that ran with their dams in small pastures 435 pounds each; and calves raised on skim-milk 440 pounds each.

The tamer calves are when they go into the feed lot, the better the gains and the cheaper every pound of gain is

and the cheaper every pound of gain is put on. The farmer who raises his own stock and pets them has every advantage in producing beef cheaply over the ranchman and over the feeder who buys at the stock yards and gets calves that have had all the loss and excitement of shipping. THE SKIM-MILK CALF IN THE FEED LOT.

A glance at the table will show that the calves raised until weaning on skimmilk made greater gains, and gains at less cost, than any of the lots that had run with their dams until weaning. The difference in favor of the skim-milk calves is strongly marked.

These skim-milk calves were not the

stunted things that a feeder ordinarily thinks of when he hears of skim-milk calves, but were thrifty, rapid growing calves when they went into the feed lots and had made a gain of 1½ to 2 pounds each per day while being fed creamery skim-milk and corn and Kaffir-

corn. We attribute their good gains to the fact that at weaning time they were already on grain feed, they did not worry at the loss of their dams as did the other calves and they were thoroughly

When a farmer can sell his skim-milk calves at a year old for \$40 to \$45 as we sold these, it adds largely to the

WHAT DOES THE PRODUCTION OF BARY SEED

MEAN? Nothing to the ranchman who has cheap pasture in abundance. A com-plete change in methods of crop production and of feeding to the farmer with

high priced, limited pastures.

The farmer who raises and fattens mature steers has to furnish pasture for his cows, the yearlings, the 2-year-old, and often for the 3-year-old steers. He waits three years from the time a calf is born until he realizes on the invenstment and only one-fourth of his herd are cows producing calves. If the farmer will produce "baby beef" he can fill his pasture to the full limit with cows producing calves and he will realize on the calves 12 months from the date of their birth. The farmer's gain will produce from 50 to 100 per cent more pounds of "baby beef" than it will of

Dip & Wash (for Live Stock)



Dipping, washing or spraying live stock is essential for the cure of Scab, Mange, Itch, etc., and for killing and removing ticks, fleas, lice, etc. Lincoln Dip is composed of nicotine, sulphur and valuable oils, but contains neither lime nor arsenic. It is effective but not poisonous or injurious. Write for literature upon INCOLN. treatment of stock for skin parasites.

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mal has sold for as high prices per hun- | so fortunate this spring and part of the dred as has the average steer.

In producing "baby beef" the farmer

can market his heifer calves at the same price as his steers and will usually get more for the 12-months-old heifer than he would for the same animal if kept until maturity.

Experiments made at the Kansas Experiment Station show that the scrub cows may be bought at ordinary prices and, if selected with dairy forms, will produce from \$50 to \$75 worth of milk per year per cow at creamery prices. Our calves fed creamery skim-milk until weaning made the greatest gains in the feeding lots and sold at \$40 to \$45 per head. This shows that a gross income of from \$90 to \$120 per cow can be made by the dairyman who will push both cow and calf.

The farmer who produces "baby beef" should raise alfalfa and feed alfalfa hay to both cow and calf every day in the year. Cow-pea, soy-bean, field pea and red clover hays may be used to give variety and this means that the farmer will grow leguminous crops largely and these will continually improve his fields.

The calves used in this experiment were "common" bred ones and they made good gains. The farmer whose business is producing "baby beef" should use the best type of bull that he can secure—short legged, thick meated, blocky and quick maturing. A few farmers who are doing this are producing year old calves that average 1,000 pounds each this means \$50 and upwards per head for every steer and

The writer would like to hear from all the readers of the Kansas farmer who are producing "baby beef" in regard to their methods and results. H. M. COTTRELL. Kansas Experiment Station.

Best Summer Pasture for Hogs. BY H. Z. CHURCHILL, ELIZABETHTOWN, KY., IN SWINE ADVOCATE.

To ascertain and discuss the best summer pasture for hogs is a subject upon which very few persons in any locality agree; and in writing anything about this subject one must take up and discuss it entirely from his own point of view and experience. Of course different conditions and localities make different results. What might be the very thing in Kentucky might not be it all advisable or practicable for Indiana, Illinois or the trans-Mississippi states, as much depends upon latitude climate and the adaptability of the soil that one may be so fortunate to own or cultivate for a summer pasture.

By the meaning of the summer pas-

I certainly would not confine it to just the three summer months, June. July and August, but would add part of the spring and fall months, thereby covering a period so as to include the time of farrowing in the spring until the hog is old enough to be placed in the fattening pen in the fall to be prepared for the market, making our pastures and show hogs, which are only sold for breeding purposes, but for the hog that is raised by every successful farmer for the market. The first thing to be con-sidered in the arrangement of a good pasture is the water supply, for without good and wholesome water no pasture or feeding of any kind will be a success; no animal of any kind, however plentiful and good its feed may be, will thrive without water; it may be and is true that grasses contain a larger quantity of water than any other kind of feed, yet it does not take the place of water, nor should the raiser of hogs allow himself to think it does.

To start your hogs off in a thriving condition in the spring, when it is possible so to do, arrange a small lot and sow it in rye. Then by the last of March or the first of April, on all pleasant days, turn your hogs into the lot of green rye. The way both young and old relish it is wonderful indeed; noth-ing puts their system in so good a conrequired to make 100 pounds of gain. beef from a mature steer and for the dition to stand the long summer months Last year the Kansas State Agricultural past three years the "baby beef" ani- as this rye. Myself and partner were

winter months as to have the wheat so high that it was an advantage to both wheat and hogs to be turned on a fifty-acre field. To come right to the beginning of the summer pasture, nothing in my experience can compare to the clover field. It is certainly the "king of all pastures," and without it we would certainly be in a dilemma as to what to do and where to go at that season of the year for a substitute. Clover son of the year for a substitute. Clover stands higher in analysis than almost any other grass for pasturage; besides it is very useful for the farmer, more so than most crops, as a fertilizer, for nothing enriches the land more than this self-same clover when plowed unter the fall, after having been pastured all of the summer season to the tured all of the summer season to the fullest extent. If any hog raiser has never tried the virtues of a good clover pasture in summer, let him hasten to do so at once. Towards the last of the summer months all clover fields become somewhat rank and dry; from then on they are not ample for the thorough maintenance and growth of hogs. So other kinds of pasture should be provided. Look around and search your books on feeding and see if you can find anything that compares with cow-peas; a patch of them would be the very thing required to finish out your summer pasture. The peas them-

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Riverside Stock Farm. CHAPMAN, KAS., Feb. 13, 1900.
DEAR SIR:—I have given your Balmoline a thorough trial in our stables for the last three years, and find it the most SUCCESSFUL cure for horses and cattle in the shape of a salve I have ever tried. It is especially adapted to healing scalded shoulders of horses. I have also used it for sore teated cows, and find it splendid. I can highly recommend your Balmoline to all stock men. We use so much that I buy it in large quantities and think there is nothing like it for healing sores on stock.

O. L. THISLER.

selves stand ninth and the hay twelfth feeding value of all mill products, grain, green fodder and hay which is very high, considering fifty American feeding materials are treated. Hogs love this pasture, and with the eating of the peas and the green pea vines they come to the fall months sleek and almost fat enough for the market.

In making a pasture of cow-peas do not try and get all of one kind or va-riety. Get for the first a variety that will make a large quantity of vines and follow up with the variety that produces a large quantity of peas, so when cold weather comes the hogs will be prepared to take readily to grain that will then be given them.

will then be given them.

The cow-pea, like clover, improves the land instead of taking from it; in other words, it both fattens the hogs and fattens the land. So it follows, in summing up, that in the judgment of the writer, for the best results to the hog and the constant improvement of the land, the best summer pasture for hogs would be to start them off early on a rye or wheat field; as soon as clover is well enough advanced to turn the hogs on and keep them there until the latter part of the summer, and then finish them for the summer on a good pasture of cow-peas. By this method you will find yourself with a herd of fat, healthy porkers and raised at a small expense. Not losing sight of the water supply, which should be plentiful and healthy, always remember that pastures for your pigs should contain grasses that are tender and juicy, if you wish them to thrive. Pigs do not have all of their temporary set of teeth until they are three months old, and, or course, can not bite or masticate anything old or tough; and when they do cut their temporary set they only contain about one-half as many teeth as they have when they have a full permanent set. One of the greatest causes of the death of so many pigs is because they are placed on food they can not masticate, and thereby die of many dis-

In discussing the subject of pastures, I have lost sight of such pastures as rape, alfalfa and blue-grass, for the simple reason that the writer knows nothing of the first two, as they are not grown in this section, and the latter grows on land that is too expensive in this state to allow hogs to run on, and probably root up, so as to destroy these beautiful pastures that are the mainstay for the fine horses and cattle. However, when it is possible, the blue-grass pasture is one of the very best to go side and side with the clover, and the two mixed help wonderfully to make the ideal summer pasture.

It is sometimes, and I say generally, that the pasturing of hogs is supplemented with feeding of grain. In fact, it makes a quick growth and fattening for the market and is commonly carried on by most feeders who ship young and quickly fattened stock. But I must urge that it is best not to make the feeding of any kind of animal too ex-pensive, especially the hog. While we can buy a great variety of mill feeds that are very fattening, the question is, does it pay to buy these to put on this additional weight? I should think not; better not to feed at all than to make it/cost more than can be realized. Just feed what you raise on your farm, which consists of corn and oats principally, and if you have any overabundance of either you might sell some of it and invest that money in shipstuffs or shorts. I have found for a summer feed, with pasture, that a small feed twice a day consisting of two parts ground corn, one part shorts and one part ground oats makes an ideal hog This mixed with water the consistency of a thick slop and given about six quarts twice a day to each grown hog, with about half the quantity to shoats, is all they require in summer while running on pasture.

Raising a Colt on Cow's Milk.

Every year more or less trouble occurs on every breeding farm. A fine mare will die at foaling time or sickness will occur, and it becomes neces to raise the foal by some other than the natural way. A word of advice at this time may be the means of saving some fellow a foal. Most men without having had previous experience either overdo or underdo in the feeding of the foal, and the result is either a dead colt in a few days or one that grows up a weakling that scarcely pays the cost of raising. To say that a colt can be raised on cow's milk as easily as a calf would be putting it rather strong; yet there is no difficulty in so growing up a colt when conditions are made right in the beginning, without which all goes wrong. The first requisite is a fresh cow. One long in lactation won't

far too rich in solids. Right here is far too rich in solids. Right here is where many an inexperienced man fails. He selects a cow because she gives what he calls rich milk. By that he means milk rich in butter fat. This it is the very cow he should discard. He needs a cow that yields quantity but not quality, as far as milk solids are concerned. The poorer the better, our object being to secure cow's milk as object being to secure cow's milk as near like mare's milk as possible. Mare's milk, bear in mind, averages only 1.21 per cent of butter fat, nearly 2 per cent of casein and albumen and nearly 6 per cent of sugar, while it is a quite inferior cow that will not produce milk containing 3 per cent fat. And right here is another difference: Cow's milk always contains a less per cent of casein than fat, while it will be noticed that mare's milk containes more casein than fat. Also notice that average cow's milk contains 5 pounds of sugar in a hundred pounds of milk, while mare's contain 6 pounds. When we thus consider what milk contains we see how very unwise it is to use a Jersey or a Guernsey cow's milk to grow a colt upon, yet many a man who has a colt to raise will seek a Jersey on account of her milk being so largely

butter fat. A colt can't grow upon it, and does well to live.

I said in the beginning select a cow that yields a large quantity. I say this because it will take a large quantity to furnish nutrition. There are few mares, indeed, but what will give a larger quantity of milk than an average cow. The little colt when running with its mother will nurse for the first week of its life, when not sleeping, as often as every hour, and no young ani-mal will suffer more from hunger than a young colt. A little too long a period between nursing has caused the death of many a foal when the mare was being used and kept away from it, and many another one has grown up a dyspepsic horse in consequence of the man thinking the colt when from one to two weeks old could stay in the barn from morning until noon while the mother was working in the field.

But now we have our cow selected to raise the foal upon. For the first week the colt should be fed from a pint to a quart (owing to size of colt) every two hours fresh and warm from the cow, and safety demands that about a gill of warm water and a tablespoonful of molasses be added to the milk. Watch closely the excrement, and if the evacuations are hard add a spoonful of flaxseed jelly. Should there be a tendency to scouring use lime water to dilute the milk with. The vessel the colt is fed from should always be either tin or galvanized iron. Never try to use a wooden pail or trough. It is utterly impossible to keep them free from germs or ptomaines, which are apt to produce bowel disease. I might add right here, the feeding of calves from wooden pails and trounghs produces

more scours than any other one cause.
When the colt is about two weeks old it will begin to call for more solid food. Allow it a little fine clover hay and a spoonful of oat chop. Never put Never put this in the milk, but feed it dry, and a pinch of salt will usually be relished. But remember while a pinch is relished a spoonful may produce gastric irritation and death.

A mistake is made by many when they think they can milk the cow morning and night, set the milk in pans and when needed warm it up. True, this has been successfully done, but there is always danger in doing it. Contaminating germs may render it injurious to the colt and in the heating a little care-lessness on the part of the one in charge and it is overheated. By far better have the cow near at hand and milk her as needed. Yes, it will take a pretty good milker to furnish all the milk a growthy colt should have, but there is money in raising a good colt and not a bit of money in a scrub. following these directions closely a colt can quite well be raised on cow's milk. —C. D. Smead, V. S., in National Stockman and Farmer.

Kansas City Market for May.

The top price of native steers for May, says the Drovers' Telegram, was \$5.85 on Wednesday of last week. The next highest was \$5.80 on Tuesday of last week. On five other days the top was as high as \$5.70 or \$5.75. The month's extreme high point was the highest May price since 1891, when \$6 was paid. Between May of 1891 and May of 1884, the top was \$5.50, so that with one exception the top price this month was the highest for May since

The top price for steers in the quaring been so strong as to leave the top antine division this month was \$5.50, roots entirely bare. But, strange to wealth would be added to our state, and although the cattle that brought this say, it was where the overflow had price were on the native order. This is fill the bill in colt raising. A farrow although the cattle that brought this cow can grow a calf but won't answer price were on the native order. This is

to raise a colt upon. Her milk is by the highest May price in the quarantine division of which we have any record

A single load of 989-pound steers sold as feeders on Tuesday of this week at \$5.05. That was the highest point of the month. There was only one other day to reach \$5. In May of last year the top was \$5.25. Top stockers this month sold for \$5.25 against \$5.65 in May of 1900.

On May 31st was the highest point of the month on hog prices, the top reaching \$5.971/2. It has been over a month since hogs sold as high as \$6, the last day being April 25. There was extremely little fluctuation in prices this month. At the opening, the bulk of sales was at \$5.65@5.75. The extreme low point of the month was \$5.60@5.70 and the extreme high point was to-day. This shows a total fluctuation during the month of only 20c. The net advance for the month is about 10c. In May of last year there was a decline for the month of 40@50c. The opening was at \$5.20@5.35, which was the high point, and the close at \$4.80@4.87½, which was the low point. May of this year recorded the largest receipts of hogs ever known at Western markets in the fifth month. To-day's top price is the highest for May since 1893, when \$7.60 was paid. From 1893 to 1883 the top was \$5.90.

April cattle receipts at Kansas City were the largest ever had in that month, but May receipts are the smallest for the fifth month of any year since 1896. The shortage from May of 1898, however, is almost too small to be seen with the naked eye.

Hog receipts at Kansas City this month for the first time in the history of this market, reached and exceeded 400,000 head. The gain over May of

last year is almost 100,000.

Sheep receipts at Kansas City this May were not quite 104,000 head. With the exception of 1897, it was the biggest May total this market has ever had. Receipts of stock at Kansas City in

May of 1901	Cattle.	Hogs.	Sheep.
	110,490	419,483	103,242
	140,522	319,682	97,703
Gain		99,801	5,539

Receipts of horses and mules for May were 7,237 head, which constitute the largest May supply ever had and 2,128 in excess of May last year. The total receipts for five months of this year were 45,671, exceeding all previous similar periods by a large majority. In the first five months last year 38,297 were received, or 7,374 below the present period.

Receipts of stock at Kansas City in

1901.	1900.	Gain.	Loss.
642,977	660,169		17,192
			463
1,627,387	1,365,546		
424,393	378,377		
45,671	38,329	7 274	
	642,977 16,756 1,627,387 424,393	642,977 660,169 16,756 17,219 1,627,387 1,365,546 424,393 378,377	642,977 660,169 16,756 17,219 1,627,387 1,365,546 261,841 424,393 378,377 46,016

Total...... 2,757,184 2,459,608 297,576

During May of this year Kansas City received 10,689 car-loads of live stock, or 40 below the same month last year. This shortage is rather remarkable considering the fact that hog receipts this month were nearly 100,000 above last year. Horses and sheep also increased over last May, but cattle fell off 30,000.

A Shawnee County Forest-Tree Grove.

EDITOR KANSAS FARMER:-The writer within the past week visited a forest tree grove in the southeastern part of Shawnee County, belonging to Mr. Wm. Lux, which is a practical demonstration of wisdom and fore-thought. This grove, or rather, these groves, is planted along a small stream; the bends of the stream are so filled in as to give staight lines for farm cultivation. One ful grove. But the larg berries, in alternate rows about 5 feet apart. The soil, rich bottom land, is better adapted to the growth of the catalpa than the mulberry; consequently the former has made a rapid and beautiful growth (many of the trees being 6 to 8 inches in diameter 4 feet from the ground, and 30 to 40 feet high), while the latter made such a high), while the latter made such a weakly, inferior growth that they are now dying out. These groves were set out about 13 years ago, Mr. Lux raising the trees from seed, consequently this valuable grove cost him comparatively little. The land occupied had scarcely any value for grain raising, as much of it overflows in time of high water, in many places the overflow hav-

THOSE DEFORMED

Crooked Feet, Spinal Diseases and Deformities, Hip Disease, Infantile Paralysis and Deformed Limbs and joints are generally considered incurable; not because they are, but because the methods generally employed fail to accomplish a satisfactory result. Farents of afflicted children and patients themselves usually make several ineffectual efforts to obtain a cure, and finally become discouraged and more or less hopeless. The success which has attended our efforts in the treatment of crippled, deformed and paralyzed children and young adults during the thirty years we have been engaged in this special work, justifies our opinion that most every case of deformity and paralysis can be cured if treated in time and by our methods. We are willing to guarantee a perfect and permanent cure in every case of crooked or club feet of whatsoever variety, so long as the patient is of reasonable age; and we will accomplish the cure without severe surgical operations, plaster parls or other painful methods. We cure hip disease in almost any stage without confining the patient to his bed or room. Shortening deformity of the limbs or loss of motion should never occur and will not occur if we treat the case in time; and in the majority of cases they can be corrected after they have occurred. We know from actual experience that plaster paris, leather and felt jackets are obsolete and injurious in the treatment of spinal curvature or Pott's Disease, and have demonstrated the superiority of our methods in hundreds of cases. Children afflicted with infantlle paralysis will not outgrow the trouble, and cannot be cured by any of the methods ordinarily employed. We have special means and facilities for the cure of these cases, and will be glad to furnish information. Write us regarding any case of deformity or paralysis. Our opinion is valuable to every afflicted child or person who desires relief. Our phamphiet, references and davice on any case are free of charge, and we are willing and anxious to be judged on our merits.

THE L. C. McLAIN, MEDICAL & SURGICAL INSTITUTE, 3100 Pine Street, ST. LOUIS, Mo.

largest catalpas, but the mulberries were almost extinct.

From this grove we can draw a practical lesson on catalpa growing, especially on rich bottom land. Catalpas after they are 6 or 8 years old should not stand closer together than 8 to 10 feet. As a catalpa stump will send up shoots for a number of years after the tree is cut, and the tree being too small to have much value at that age, most parties have a hesitancy about thinning out their groves before every tree is large enough to have a commercial value, and the consequences are that all the trees are injured by remaining in too close proximity to each other. Therefore, in planting on rich moist land, intermix Russian mulberries with catalpas; the former being a sufficiently good nurse-tree to stand the catalpa with a straight, upright stem, but in a few years it dies, leaving the catalpas a good distance apart for future

This is a good lesson in forest-tree growing, but not an infallible rule to follow in planting a grove in any or all kinds of soil, for we have seen just the opposite result in this county; in which case the catalpas and mulberries. were planted in close alternate rows on dry upland of rather poor quality. Therefore, it is well to take into consideration the quality of the soil, and the peculiarities of the trees. catalpa makes a vigorous, rapid growth in rich, moist land, and when planted alternatly soon over reaches the mulberry; but, on the other hand, if planted on dry upland the catalpa at first makes a more inferior growth than bend of the stream is filled in with the mulberry, while the latter's spread-Black Walnut that is making a beauti- ing branches help to retard the growth the forme planted with catalpa and Russian mulcatalpa, not being in soil adapted to berries, in alternate rows about 5 feet its rapid growth, soon gives up the contest, and we have a mulberry thicket, and no forest trees.

Mr. Lux said that when he planted his trees he did not know which would prove the most valuable, but he did a noble work, and his experiment turns out to be not only an exemplary lesson to other farmers, but he has added a value to his own farm that could not possibly be done with the same expense in any other way. Two or even 300 dollars per acre would be a low value to place upon his forest grove lands. For fence posts alone it is valuable, but for telegraph and tele-phone poles it is much more valuable.

If every farmer would do as Mr.

STATISTICS OF KANSAS.

The following statistics will appear on the margin of the new railroad map of Kansas to be published by the Board of Railroad Commissioners about July 1:

of Kansas to be published by the Board of Railroad Commissioners about July 1:
Population
RAILROADS. S.716.62 Miles of main track. S.716.62 Miles of side-track. 1,476.56 Total 10,193.18 LANDS.
Acres. Under cultiation
Total
Government lands subject to home- stead
School-lands subject to sale under state laws
Winter wheat \$410,463,644 Spring wheat 12,624,549 Corn 797,184,613 Oats 139,574,255 Rye 22,551,149 Barley 6,981,066 Buckwheat 427,591 Irish potatoes 67,255,294 Sweet potatoes 5,554,046 Castor-beans 3,672,738 Cotton 375,375 Flax 25,494,182 Hemp 160,988 Tobacco 563,107 Broom-corn 19,155,513 Millet and hungarian 66,333,011 Sorghum 46,821,725 Milet and hungarian 66,333,011 Sorghum 46,821,725 Milet and hungarian 66,333,011 Sorghum 46,821,725 <t< td=""></t<>
Buckwheat 427,591 Irish potatoes 67,255,294 Sweet potatoes 5,554,946 Castor-beans 3,672,788
Cotton 375,375 Flax 25,494,182 Hemp 160,986 Tobacco 563,107 Broom-corn 19,185,513
Millet and hungarian 66,333,011 Sorghum 46,821,725 Milo maize 705,054 Kafir-corn 27,017,598
Timothy , clover, 'blue-grass, alfalfa, orchard-grass, other tame grasses
Live-stock products 889,384,374 Horticultural products 40,736,168 Pearl millet and rice-corn 1,384,040 Grand total \$2,768,467,666 Annual average 138,423,383
Annual average
Totals 712,487,558 3,022,489,260 Yearly averages 35,524,378 151,124,463 YIELDS IN BUSHELS Wheat Corn. 1889 43,687,013 225,183,432 1900 77,339,091 134,523,677
VALUE OF FARM PRODUCTS. 1899
Numbers Values
Total\$133,057,092.00 LIVE STOCK 1900. Numbers, Values.
Horses 786,888 \$39,344,400.00 Mules and asses 89,064 5,343,840.00 Milch cows 712,582 23,515,120.00 Other cattle 2,443,043 60,933,000.00 Sheep 200,301 600,903.00 Swine 2,286,734 13,720,404.00
Total
1900
UNDERGROUND PRODUCTS—1-00. Coal and coke \$5,743,750 Salt (with cooperage) 1,216,898 Clay products. 280,000 Gypsum 285,000 Stone (building and ballast) 583,750 Petroleum and products 285,118 Natural gas 285,000
Gypsum 265,000 Stone (building and ballast) 593,750 Petroleum and products 355,118 Natural gas 925,000 Cements 669,685 Lime and sand 121,000
Total underground products \$10,720,201 Zinc ore—\$1,235,859, carrying zinc worth 2,009,286 Lead ore—\$206,196, carrying lead worth 324,859
Total zinc and lead ore\$2,334,145 Zinc smelting, over 57,000 tons\$5,017,682 Lead smelting
Total zinc and lead smelting. \$5,167,682 Grand total (without counting the Argentine refinery)
Apple-trees
PREMIUMS AWARDED ON KANSAS FRUITS.
ticultural Society. 1871.—First premium, Virginia Horticultural Society, Richmond, Va. 1871.—First premium. American Institute, New York City, N. Y. 1872.—First Premium, American Institute, Fair, New York, N. Y. 1873.—Silver medal, American Pomological
1873.—First premium, New Jersey State
1873.—First premium, American Institute Fair, New York City, N. Y. 1876.—First Premium, Centennial, Philadel- phia. Pa.
1893.—First premium, New Orleans Cotton Fair. 1893.—Bronze medals, Columbian Exposi- tion, Chicago, Ill.

for our WINDMILL BOOK

The man who knows most about windmills has written a book. It is a 40-page book with more than 100 pictures. To the man who wants a windmill every page of the book is interesting. Not a word will he skip. And when he is done he will know all that anybody knows about windmills and what they should do. He cannot be fooled; but the man who buys a windmill without reading this book will regret it. Simply send us your address and the book will be mailed to you free.

The writer of this book is president of the Aermotor Company.

But the book is not biased, nor unfair. It is a book of information, written by the man who knows more than any other man about windmills.

We are not trying to sell you direct. We simply want to tell you the facts that may save you a costly mistake.

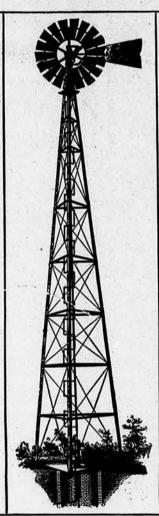
Half the cost of your outfit is in putting up and taking down. You can't get that back if you make a mistake.

When you know the facts, get the windmill you want; and if you decide on an Aermotor, you can go to your dealer for it. We will give you the name of agent nearest to you.

The writer of this book started in twelve years ago to make Aermotors. The field was overcrowded. Makers with millions of capital, and tens of thousands of agents controlled all the trade there was.

The Aermotor Company had little capital no trade, no agents, no reputation. 'Twas a pigmy among giants.

That was twelve years ago. Today the whole earth is dotted with Aermotors, and more Aermotors are sold than of all other windmills put together.



That is a record with scarcely a parallel in the history of invention. The book will tell you how it was done.

5,000 experiments were made before the first Aermotor was built. Sixty-five wind-wheels were tried before the right one was found.

He tells you how he knew that was right. He shows you why Aermotors work in the lightest breeze, when all other windmills stand still.

He kept on improving until 55 patents had been issued on Aermotors, covering 55 important features no other windmill has.

The book will tell you about them, and about the steel towers which he first made when other makers deemed them impossible.

In twelve years he has cut the cost of wind power to one-sixth what it was when he started.

Think what that means to you.

He has invented machinery to make each part of the Aermotor at the least possible cost.

More than half the world's windmills are now made in this factory; made by perfect machinery, in such quantities and so cheaply, that Aermotors cost far less than any other windmill worth having.

No man who reads this book will buy any windmill but the Aermotor. He will know why the majority buy Aermotors and he will demand what they seek. He will not be content to pay more than our prices for a windmill half so good. That is why we issue the book, of course. But it is better for you than for us. It saves you all you would waste if you bought the wrong windmill. It gives you the knowledge you need to avoid a costly mistake.

Write a postal for the book.

AERMOTOR CO., 1255 TWELFTH STREET, CHICAGO

We have another book about Power Aermotors for doing all sorts of work—for grinding, for sawing, for cutting feed, shelling corn and running many kinds of machinery. This book is free, too. Also a book about Pumps, Tanks, Substructures, Pipes, Fittings and all sorts of Water Supply Goods. We make 160 Tons of Piping daily. Our plant occupies more than 30 Acres. This is considered a pretty good sized farm in New England.

Total \$9,025,442

STATE DEBT.

Kansas state debt is......\$667,000

It is all owned and held in the permanent educational funds of the state.

Publishers' Paragraphs.

Don't fail to notice the advertisement of Drs. Thornton & Minor, the great specialists of Kansas City, who have earned their well-deserved success in their chosen line. The publishers of this paper can vouch from personal knowledge as to their ability to carry our their promises. They are skillful and reliable in every way.

At this season of the year when haying is the important work on the farm and showers are likely to occur, probably no one thing will save as much loss and extra labor as an outfit of stack covers, wagen covers, and hay caps; such as the

Topeka Tent and Awning Co., are offering our readers in their advertisement this week.



Then, too, if vou need awnings of any kind; tents for reunions or any other purpose; camp goods or canvas goods of any description, they can be found at reasonable prices at this up-to-date house. We would suggest that any of our readers needing anything in this line write them at 304 Kansas Ave., Topeka, Kans., for catalogue and prices, mentioning the Kansas Farmer.

SAVE A DOCTOR BILL by having a supply of medicine on hand. Our Big Drug Book contains 15000 drugs, medicines, family remedice, extracts,

contains 15000 drugs, medicines, family remedies, extracts, saints, oils, etc. We save you 15 to 75% Book mailed for 10c.—etunded on your first order. "The 0 say mail Order Prug Hessen the World." HELLER CHEMICAL CO. Dept. 47 Chiengo, III.

...MEN...

Book for men only, explaining health and happiness sent free in plain envelope. Address CHICAGO MEDICAL INSTITUTE, 110 West Sixth Street, Topeka, Kansas.

The Some Circle.

LIFE'S MYSTERY.

The stars, the skies, the peaks, the deep of the fathomless seas, Immanent is He in all, yet higher and deeper than these.

The heart, and the mind, and the soul, the thoughts and the yearnings of man Of His essence are one and all, and yet define it who can?

The love of the right, though cast down, the hate of victorious ill,
All are sparks from the central fire of a boundless beneficent will.

Oh, mystical secret of nature, great universe undefined,
Ye are part of the infinite work of a mighty ineffable Mind.

Beyond your limitless space, before your measurless time,
Ere life or death began was this change-less essence sublime.

In the core of eternal calm He dwelleth unmoved and alone 'Mid the universe he has made, as a mon-arch upon his throne.

And the self-same inscrutable Power which fashioned the sun and the star

Is Lord of the feeble strength of the humblest creatures that are.

The weak things that float or creep for their little life of a day,

The weak souls that falter and faint, as feeble and futile as they;

The malefic, invisible atoms, unmarked by man's purbund eye, That beleauger our house of life and com-pass us till we die—

All these are parts of Him, the invisible one, supports and illumines the manvereation's Pillar and Sun!

Yea, and far in the depths of being, too dark for a mortal brain. Lurk His secrets of evil and wrong, His creatures of death and pain.

By a viewless necessity chained, a determinate impetus drives

To a hidden invisible goal the freightage of numberless lives.

'1.e waste, and the pain, and the wrong, and abysmal mysteries dim
Come not of themselves alone, but are seed and issue of Him.
And man's spirit that spends and is spent in mystical questionings—
Oh, the depths of the fatnomless deep; oh, the riddle and secret things,
And the voice through the darkness heard and the onrush of winnowing wings!
—Sir Lewis Morris.

THE MAN OF THE WEEK.

W. A. Henry.

(Born June 16, 1850.)

It is the misfortune of some men to receive too much schooling. Hundreds of scholars are spending their best years in studying for degrees-working for the signs of accomplishment, but failing to realize the substance thereof, which is genuine service to mankind.

Professor W. A. Henry is a man of a different sort. Born and bred on an Ohio farm, his birthright was an ambition to get an education and to do something useful. He earned his education. In 1880, at the age of twenty-five years, he graduated from Cornell University in the agricultural course. He allowed no visions of academical hon-ors to turn him aside from his purpose to do something. The opportunity of a life time came to him that very year in his election as professor of botany and agriculture in the University of Wisconsin. Ever since he has been working with rare diligence and success in the great institution that was so fortunate as to enlist his enthusiasm and

As his department grew, Professor Henry had to choose between botany and agriculture, and he wisely chose agriculture as furnishing the broader field for his energies and his ambitions. In 1887 he was elected director of the experiment station connected with the university, and in 1891 was made dean of the College of Agriculmade dean of the ture, both of which positions he still holds. Here he had a rare opportunity for usefulness. He was in a university where independent work was appreciated and encouraged; in a great agricultural state whose resources were only beginning to be understood, whose soil had been robbed by unsystematic grain farming. It was his office to dis-cover the secret of the greatness of his adopted state and to be a leader in developing her agricultural riches.

Professor Henry established the first

dairy school in America. It has many imitators, but no equals in usefulness. While this school grew and flourished, the dairy industry of Wisconsin grew also. During the past year this school has had an attendance of 120 students, and was compelled to turn many appli-

The first short course in agriculture like it. Education, they argued, is a

in a few months. But Henry was not pleading for education in the ordinary application of that much-abused word; he was asking for an opportunity to give a limited amount of instruction. He knew that there was need for the kind of teaching which his short course provided; he could only hope that it would attract farmers and farmers' sons who would not or could not take the full course in the agricultural college. The short course has been a success, and has been adopted by other institutions. During the past year 287 students took the short course in agriculture in the College of Agriculture under Professor

Henry's supervision.

The dairy school and the "short course" are not all of the Wisconsin College of Agriculture—a college which stands in the front rank of those of its class. The attendance during the year has been 437—a substantial increase over the previous year.

Professor Henry's own particular field of work is the feeding of farm animals. His first reports on feeding were models of their kind and class, and were the patterns for many others by investiga-tors who, lacking Henry's originality, were wise enough to appreciate his good work and to make it the basis of their own. The ripe fruit of his studies in his book on Feeds and Feeding, which has been well described as "an invaluable handbook for the student, stockman, and farmer." This work has

been adopted as a text-book by a large number of agricultural colleges. Notwithstanding the great value of his own investigations and writings, Professor Henry's chief service to agri-culture is as an organizer. He has surrounded himself, in college and experiment station, with some of the most successful workers in the world—men whose contributions to agriculture might be counted greater than those of their chief were it not that they owe their opportunities to him. Nearly every experiment station has its "director," but Professor Henry is one of the few real directors of experiment sta-tions. He knows how to plan work, how to secure and keep competent workers, and how to harmonize and unify their work. Director True of the Office of Experiment Stations at Washington, who knows more about experi-ment stations and experiment station workers than any other man in the country, says that Professor Henry "has been very successful as an organizer manager of experiment station work, having built up a station in which science and practice are combined in a most excellent and efficient way."

They work at the Wisconsin station and they secure results.

Not only is Professor Henry a suc-cessful student of practical and scientific agriculture and a genuine leader of scientific investigators, but he is also a recognized leader among the farmers of his state and the whole country. is one of them, assuming no airs of su-periority, yet impressing himself upon them as one who feels a real interest in them and their work, who knows their difficulties and knows how to help

without being officious. Professor Henry is in the prime of life, is fortunately situated in a great university that appreciates him, and is spending his energies in behalf of a state whose farmers understand his value to their industry. He is a real captain of agriculture.

D. W. WORKING. Denver, Col.

Will Africa Be Redeemed Through Results of Negro Slavery in the United States?

With a note to the editor, saying he was a southern soldier from 1861 to 1865, Mr. John S. Schilling, of Toledo, Ohio, sends to the Kansas Farmer the following, which to the men who were boys in those dark days, sounds like an each from the half-forgotten past or a echo from the half-forgotten past, or a voice from the tombs, repeating some of the arguments by which it was of the arguments by sought to prove that slavery was a divine institution and ought, therefore, not to be interfered with by the implous hands of man. The younger generation may like to be translated, for a few minutes, back through the years to a half century ago. If so, let them read Mr. Schilling's paper.

EDITOR KANSAS FARMER: -The continent of Africa; with the civilization of Egypt within its borders, dating back to ages remote; with its eloquent suggestions of the lost arts, and of me-chanical prowess hardly excelled to this day; with the enlightenment of Europe separated only by the waters of the Mediterranean; was permitted through all ages to continue in its semi-barbarism to await action to be taken on the was inaugurated by Professor Henry.
The idea was new. College men did not
The idea was new. College men did not
Well-founded theories of Columbus,
When the attention of Europe might be
When the attention of Europe might be long process; you can not educate man directed to a new continent, where was the other condition under process of

ient stages, for the development of the saving and redeeming possibilities of the millions of a race of people without the inherent qualities to save and elevate themselves to civilization.

THE FIRST CARGO OF SLAVES.

The landing at Jamestown, Va., in the early years of the seventeenth century, in the infancy of the country's histury, in the infancy of the country's fistory, has not been a theme for the writers of prose or poetry—has no marks of a hallowed place, like the justly celebrated rock that commemorates the landing of the pilgrim fathers. Was not that landing at Jamestown, Va., in 1619, of the first twenty negroes, equally as important to the colored race, in the benefits that have accrued to the race, as the landing the year following to the white race? Let us examine why not. Divest the mind of all prejudices growing out of past differences of opinion, as they relate to that institution that had its beginning with the colonists at Jamestown, Va., and weigh the evidences that point to the niany possibilities that have accrued to the negro race in this land, all due to the chance visit of that Dutch captain, who, on his way to the West Indies with his cargo of living freight, had lost his bearings in the then strange waters of the western Atlantic, and knowing that there had been a colony of English brought to the mainland, he felt it his duty to find them. He found them at Jamestown, Va., the worse for their hardships, without gold or money.

TRADED PEOPLE FOR TOBACCO. For tobacco his cargo became the property of the colonists, then was started slavery, in this country, that was transferred by the colonists and protected as a right of the States. therefore becomes evident that had not that transaction with the Dutch captain taken place, the race would not be here the traffic would not have been repeated and enlarged upon. Impress this fact well upon your mind, for, think you, had not that first trade been profitable, that these people would be here in this land, of thir own volition, when they failed to avail themselves of the advantages of the higher civilization of Europe and of Egypt, with no impassible geographical barriers to overcome? PROVIDENTIAL DELIVERANCE OF THE BLACK MAN.

Earnest thought along this line of logic will make it plain that the slavery started at Jamestown, Va., served its providential purposes, and is now a memory of the past. There is no occasion to fret over its concomitant evils, when a review of all the evi-dences that can be adduced, shows plainly that it was the best and most practical method for drawing that race and people, by force, from their non-progressive condition to higher possibilities, as now enjoyed, when their anterproductions are promisely the same as cedents are nominally the same as shown by the story of "The Dark Con-tinent." Force is one of the essentials of civilization, and the condition of slavery involved force. Therefore, why longer disagree with its past methods, and the prime cause for their being brought here, when the results have been to train them for a degree of control preparatory to freedom, to place them in a relation to learn to be selfsupporting in the midst of a most enlightened people; in the midst of the arts and the sciences, with intuitions nowhere found and so generally enjoyed as by the people of the United States? Will there, for reasons given, be justification for the conclusion that the institution of slavery, one of the causes of a conflict more terrible in its results as to the loss of life, more re-plete with evidences of endurance and magnanimity of spirit, than found in the annals of history, eventually result in elevating the people of Africa, in helping to Christianize their antecedents?

A WHITE MAN'S GOVERNMENT.

Whatever might be your opinions upon the subject, there is strong evidence for the belief that this country, for generations to come, will be controlled by the white race, whose methods will predominate—upholding a social barrier that will not be disregarded. While the intuitions of the country make honors open to whom honors are due, and, while the colored race have inherited this gift, they have the knowing that their chances in the race are not equal to the white race and they will naturally turn to the opportunities where they can be as good as the best. Does it not seem that the work of Livingstone, of Stanley, and the philan-thropy of Europe in the development of Africa during the last thirty years, have been to prepare one condition, for

to be founded a condition of events designed to grow, through all of its inciplast three centuries? God, in His wisdom and goodness, frequently extracts results merciful and rich, that, to the human comprehension, appear cruelly wrong, as is most clearly shown in the conditions of the colored race in this land.

THE WHITE MAN'S FREE AGENCY.

While the white man, in his moral rights as a free agent, is responsible alone to his Maker for many transgressions, and as a slave owner has left many evidences not to his credit, a mer-ciful Providence will make the most of his misdoing; and in the change of the negro in this land from the creature of servitude to one of higher power and aspirations—a result requiring several generations—is due the improved mental condition—the susceptibility to higher aims, the ambition to excel, the condition so necessary for the great work, and that will eventually result in the redeeming of this race and people. In evidence of these suggestions recall the press notices of the late United States Senator Bruce, of Mississippi, of Frederick Douglass, and hundreds of other able and talented men of that race, having much to commend in their character and attainments.

FITTED TO RETURN TO AFRICA.

Such a degree of acumen was not possible without their association with cultivated minds and the perfecting of generations. These evidences and advantages are now possessed by thousands of those whose forefathers were slaves who can now, with feelings of gratitude, admit that their ancestors were slaves, this ordeal giving them a rich inheritance of possibilities for themselves and their children in furthering the designs of Providence in the help to advance and in redeeming the land of Africa, the home of their anteceents. John L. Schilling, 1034 Virginia St. Toledo, Ohio.

The Queen and Napoleon.

The simplicity of Queen Victoria's character is well shown by the ease with which the adventurer Bonaparte ingratiated himself and the obscure Spanish countess whom he had married into her favor. He was, as Greville remarks, the first man whom she had ever met on the footing of equality, and he took prompt advantage of this vantage ground to secure for himself the stamp of what may be called the social approval of the coterie of kings which her approbation conferred. He did it by the old but always effective method of familiarizing himself with the life history of the subject of his flattering attentions. "It is very odd," exclaimed the ingenuous queen, after her visit to Paris in 1885. "but the emperor knows everything I have done since I was 12 years old. He even rec-ollects how I was dressed."—Harper's Weekly.

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To a farmer who cannot get his mail every day it is as good as a daily and much chaper.

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The Houng Folks.

SUCCESS.

At the foot of the Hill of Endeavor, O Young One, look upward and see The shine of the prize That dazzles your-eyes With the gleam of the glory to be.

Far up in the clouds like a beacon,
Its luster illumines the world.
And you start on your way
At the dawn of the day
With the flag of your purpose unfurled

outh, Hope and Ambition attend you, And the line of your march is bestrewn With the roses that bring You the fragrance of spring, While the fullness of earth seems your

Up the steeps of the Hill of Endeavor
You battle and toil and keep on
For the glittering prize
That dazzles your eyes
At eve as it did at the dawn.
Its brilliance is always before you
To lighten the arduous way
That leads to success,
Through struggle and stress,
And crown you with laurel and bay.

At the top of the Hill of Endeavor,
O Old One, look downward and call
To the brave and the true
Who are following you,
God speed and good cheer to them all.
—William J. Lampton, in the Independent.

Fragments of Money.

The receipt recently of the fragments of six \$5 bills which had passed through the stomach of an Iowa goat and were offered at the Treasury Department for redemption has revived interest in that division of the Department which concerns itself with the redemption of mutiliated money. The bills were the property of Charles J. Allen, a farmer living near Ogden, Iowa. The affidavit which accompanied the mass of pulp gave the circumstances under which the bills passed into the stomach of the goat.

It appears that Mr. Allen became warm while doing some manual labor and removed his coat and vest and placed them on a fence, says the Washington correspondent of the St. Louis Globe-Democrat. The articles of wearing apparel fell from their resting place to the ground and an inquisitive goat happened along and nosed the six \$5 bills out of the pocket. No one saw him eat the bills, but when Mr. Allen replaced his coat and vest he found they had disappeared. A companion wagered that the goat had eaten the mills, and it was agreed that if Mr. Allen did not find them in the goat's stomach after it was killed the price of the goat would be forthcoming. The goat was killed and the bills were found in a little lump in the stomach. When received at the Treasury Department the mass had hardened into a little darkbrown lump that resembled anything but money. The experts took the mass in hand and soaked the whole until the minute particles separated. Then skilful fingers accustomed to the work separated each piece and in two hours the entire six \$5 bills had been placed together and were ready to be sent upstairs to the United States Treasury for redemption. Mr. Ailes, assistant secretary of the

treasury, says that the occurence was anything but a novel one for the Gov-The task of the department experts in this case in separating the bills was a comparatively easy one, and not to be compared with others which the department has had to handle. But a few weeks ago a case parallel in near-ly every particular with that of the Iowa case was presented to the department.

A Michigan tax collector, who had little faith in banks, stored something like \$800 in a tin can for safe keeping over night and placed the can under his house. It appears that the house was elevated, so that the family goat was able to walk under it. The next morning, just as the tax collector startmorning, just as the tax collector startmorning. ed to crawl under the house and bring out the money owed to the county, he saw his goat emerging from under it slowly chewing on the remnant of a new \$20 bill. The excited collector

caught the goat and forced the portion of the bill from his mouth. This was the largest piece found. The collector was a poor man, and was faced with the necessity of making good the amount of funds due his county. He killed the goat, secured the contents of the stomach, made the necessary affi davit as to the circumstanmes, sent the matter to Washington, and within ten days had bright, new crisp bills for the

entire amount. The regulations of the department re quire that at least three-fifths of a bill shall be recovered before the Govern-ment will pay for the mutilated bill. Fach mutilated bill is carefully pasted on a backing of paper the size of the complete bill. The expert has a piece he said represented \$500 of hard-earned

of glass of the exact size of the bill. This glass is divided into forty squares. It is placed over the bill, and if the expert can find that the remnants of the bill fill twenty-four of the squares, or three-fifths of all of them, the bill will be redeemed.

A case within the last three weeks came from a farmer of St. Clair County, Missouri, who, while stooping over to feed his hogs, dropped his purse inside the pen. An hour later, when he missed his purse, he found the leather receptacle inside the pen, but nothing of its contents. There was a slaughtering, which it had been his intention not to have until several days later. What resembled the remains of the money was found and sent on to Washington. Three hundred dollars was returned to the Missouri farmer.

It is now the custom of the depart-ment to return mutilated money found by any person to the finder if it is reasonably certain the case is a bona fide find. This was not the case formerly. The negroes who found \$3,500 in bills torn into small bits on the lake front at Chicago six years ago turned it into the subtreasury at Chicago for redemp-tion, confessing that they had found the amount. It was forwarded to Washington, but the ruling of the department was that it could only be redeemed when one established possession of it.

The finders got nothing. More re-

two negroes found several hundred dollars near the Meramec Heights Hotel, not far from St. Louis. They turned the money over to the St. Louis substation, and it was sent to Washington. The money was sent back from there, with the instruction that the department held that unless some one came forward and established beyond question proprietorship in the money it had been the custom to give it to the This was the find which was connected by some with a sensational assault which occurred near the resort where the money was found.

Burned money is the hardest for the government experts to work on, with the exception of the money which has been gnawed by mice. Saturday afternoon there came into the department a cigar box full of money which had been sent from Philadelphia with the necessary affidavit, showing that it had been inside of a poorly constructed safe and had been burned to the condition in which it was forwarded. Evidently with the idea that the original package ought not to be broken, the sender in-closed the charred pieces with some silver coins which had also been badly burned in the same safe.

During the passage of the money

through the mails the heavy silver was shaken through the charred bills until there was hardly a piece left big enough to cover more than the head of a pin. Each of the pieces looked as though taken from a grate into which papers had been thrust. Mrs. Brown, who is in charge of the experts who handle the mutilated money, all of whom are women, did not despair, although she deplored the thoughtless-ness which had allowed silver and charred paper to be packed together. She called two of her assistants, and the three, by the aid of the magnifying glasses, soon brought out four fifty-dollar bills, and within an hour recom-mended that they be redeemed by the treasurer

The mice chewed bills make puzzles for the experts which can only be solved with infinite patience and care. Each of the pieces is carefully laid out on a hard, flat surface, and then with the assistance of strong glasses, magnified so it can be placed in a proper position in relation to ail of the others. The experts have a copy of every bill which has ever been printed by the

The experts say that some of the best money that has been printed by the Government was printed during the civil war period. The grade of the paper was superior to any ever used, and the engraving has never been excelled. Bills which have been received recently of that period are in an excellent state of preservation. No bill has ever been received at the Treasury Department in a condition which has made it impossible for the experts to straighten it out and establish its character beyond doubt. Mrs. Brown has never been obliged to work on a bill longer than the eight hours of the day.

Secret-service officers have been frequently called upon to learn if the stories which are told of the way in which bills become mutilated are true. Within the last week a Washington



He declared that he had hid money. the money behind his home by burying it in a tin can. He explained that his wife was given to great extravagance and he was obliged to hide the money to keep her from spending it

When the experts laid out the pieces they found that there was over \$700. A secret-service officer was then sent to establish the facts as to the matter, and gravely reported that the negro's story was a correct one, even to the claim that his wife was extravagant.

Recently an elderly German woman came to the department from Baltimore in great distress. She had charred remnants of some money which was, she said, the savings of forty years. She thought that there was at least \$500 in the original roll. On the evening before, as the knelt at her devotions a lamp in the knelt at her devotions, a lamp in the room adjoining had toppled over and set fire to a dress skirt in which she had the money. Part of the debris had been lost before she remembered that the money was in the burned skirt. She had collected what had remained. Sympathetic officials took her through the treasury building to the room of the experts in the basement. There she seated herself while half a dozen experts worked on the money. She rocked to and fro and cried and sighed during the greater part of the three hours, while the women worked and at intervals tried to calm her. By noon she had been given \$300 of the amount and sent back to Baltimore with the assurance that if she could secure the rest of the debris more of the money might be restored to her.—Inter-Oean.

Commotion in a Monkey Cage.

Monkeys big and little in an india criminate fight demanded the attention of the keepers of the zoo the other afternoon, and it required half an hour before the combatants could be separated. A piece of a juicy apple was responsible for the trouble, and while the fight went on a sly ape sat in one corner of the cage quietly munching the apple and watching his companions quarrel. An old lady, accompanied by a lad of perhaps 17 years, entered the zoo in the afternoon and made direct for the cage containing the monkeys. The monkeys swarmed to the end of tne cage, waiting patiently for the usual piece of cake or peanut. Leisurely cutting off a large slice of an apple the old lady threw it into the cage and watched them scramble for it. Each one did his best to secure it and in an instant there was pandemonium. Nothing could be seen but a struggling mass of monkeys rolling from one end of the cage to the other, biting, scratching, and yelling. The entrance of the keepers only made this worse. Bars and sticks were thrust through the sides of the cage, and eventually were effective in putting down the riot.—Philadelphia Press.

Spain's National Sport.

Bull-fighting, Spain's national sport, was supposed to be too strongly intrenched in the spirit and traditions of the people ever to become distasteful to them, but it now appears to be destined to be swept away before march of civilization. At a recent mass meeting in Barcelona, the scene of many a gory contest between matador and bull, resolutions were passed condemning the sport as cruel and burtalizing, and calling upon the government to suppress it throughout the peninsula. The fact attests the power of the humanizing ideas and influences which, slowly but surely, are trans forming the world into a better and happier abiding place for man and animal alike.—Youth's Companion.

Couldn't Teach Him.

A showman had an announcement "Come and see the great stating: "C sawed fish!"

A learned gentleman read it and informed the showman that he had made a mistake in the word "sawed," that it ought to be "sword." "Yer'd better come in an' see for yer-

self; the hadmission is only tuppence, sir," said the showman.

So the learned gentleman paid his "tuppence," went in and was shown a large codfish sawn in half.

"Yer ain't the fust gentleman wot has tried to each me 'ow to spell; but I tell yer I've 'ad a good eddication an' I'm runnin' this show to prove to peo-ple I 'ave," grinned the showman.

The learned gentleman left, deeply indignant with the world in general and the showman in particular.—Spare Moments.

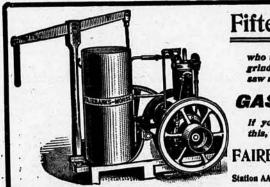
Art and Maple Sugar.

Hester-People think so differently. While some are always talking about the beauties of nature, others think there's nothing like art.

Uncle George-Yes, nature is well enough in her way, but after all there's nothing like art. Take maple sugar, for instance. Nature can produce it only a few weeks in the year; but art, Lord love you, is equal to its production the whole year round.—Boston Transcript.

Beware of Ointments for Catarrh That Contain Mercury,

contain Mercury,
as mercury will surely destroy the sense of
smell and completely derange the whole
system when entering it through the mucous surfaces. Such articles should never
be used except on prescriptions from reputable physicians, as the damage they will
do is tenfold to the good you can possibly
derive from them. Hall's Catarrh Cure,
manufactured by F. J. Cheney & Co., Toledo, O., contains no mercury, and is taken
internally, acting directly upon the blood
and mucous surfaces of the system. In
buying Hall's Catarrh Cure be sure you buying Hall's Catarrh Cure be sure you get the genuine. It is taken internally and is made in Toledo, Ohio, by F. J. Cheney & Co. Testimonials free.
Sold by Druggists, price 75c per bottle.
Hall's Family Pills are the best.



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who together can pump more water, grind more feed, shell more corn or saw more wood than this little

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To insure prompt publication of an advestisement, 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.

erences are given.
All advertising intended for the current week should reach this office not later than Monday.
Every advertiser will receive a copy of the paper free, during the publication of the advertisement.

KANSAS FARMER CO., 116 West 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 dolar a year, and no single sub-scription will be entered for less than this price, every old subscriber is au-thorized 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 sub scribers will be entered, both for one year for one dollar. Address, Kansas Farmer Company, Topeka, Kans.

Exchanges tell of a fakir who is working towns and cities and rural districts in the following manner: drives through the country and sells soap at \$5 a box, which sum includes the price of 40 yards of carpet selected from the sample which he has on his wagon. He takes the \$5, leaves the box of soap and promises to deliver the carpet within a week, and drives away. The soap is probably worth fifty cents. It stays with the purchas-The carpet is worth probably \$15 but it stays with the fakir and has not been delivered to a single victim.

FOREIGN MARKETS FOR PURE-BRED STOCK.

A meeting was held at the Transit House, Chicago, last week, the object being to further means whereby an outlet for pure-bred cattle in the United States and Canada could be found in South America, particularly in the Argentine Republic. The meeting was presided over by Alvin H. Sanders, of the Breeder's Gazette, and Charles Gudgell, the Hereford breeder, at Independence, Mo., was secretary. The attendance was large, representatives of many breeding associations being present. Mr. Sanders stated that Director General Buchanan, of the Panlive in the cities and towns, as against American Exposition, late United States consul to the Argentine Repub-lic, had drawn his attention to the great possibilities for American breeders in the South American markets. especially now that they are closed against England on account of the prevalence of the foot and mouth disease in some sections of that country. Mr. Snow, a statistician who spent last winter in the Argentine Republic studying agricultural conditions and the live stock situation, said there was undoubtedly a great opening in that country for American cattle, but it would first be necessary to educate the people there up to the fact that we have the right kind of animals. He said the fact that buyers from Argentine met American breeders abroad buying ani-mals had given them the impression that our cattle were as poor as their own. As an evidence of the number of pure-bred animals imported into Ar-

gentine from England he gave the 101-

lowing figures: In 1899 there were imported 825 Shorthorns, 43 Herefords, and 14 Aberdeen-Angus; in 1900 the number was 418 Shorthorns, 14 Herefords, and 6 Aberdeen-Angus.

After a discussion as to means for securing a portion at least of this trade, the following resolution was introduced by C. E. Leonard. of Rel Air, Mo., president of the American Shorthorn Cattle Breeders' Associa-

Resolved. That in the opinion of this meeting it is desirable that steps should be taken to cultivate the trade in live stock between this country and South America, and that the first step in this direction should be the appoint ment of an accredited agent who should proceed to that country to represent the associations chiefly interested in the various breeds of live stock, with a view of disseminating accurate information as to the supply of superior animals in the United States and Canada suitable for export to that country.

This resolution was adopted, and in a general discussion as to methods the concensus of opinion seemed to be that the representative of the associations should use his best endeavors to have a party of the leading cattlemen of the Argentine Republic visit this country during the International Live Stock Exposition, at the expense of the associations, and see for themselves the superior class of live stock raised in the United States and Canada.

A resolution was passed authorizing the executive committees of the various associations, in conjunction with General Manager W. E. Skinner, of the International Live Stock Exposition, to select a representative to visit South

THE RUSH TO THE TOWNS.

Those who had hoped that the 1900 ensus would show a tendency of populations to seek the country rather than the towns are doomed to disappointment. The census office has issued a bulletin giving the population of incorporated places in the country. The bulletin shows that there are 10, 602 such places, as compared with 7,578 in 1890.

The bulletin shows thirty-eight cities containing more than 100,000 people each. Of the large cities in 1900, three, New York, Chicago, and Philadelphia, contain upward of a million inhabitants, the same as in 1890, while for cities having between 500,000 and 1,000,000 inhabitants, those in 1900 number 3, as against one only in 1890. There are no cities in 1900 containing between 400,000 and 500,000 inhabitants, but at the census of 1890 there

were three cities of this class.
On the other hand there are five cities in 1900 with a population of be-tween 300,000 and 400,000, but in 1890 there were no cities coming between these limits of population. Of the total number of places in the list, almost one-half, or 4,318, contain fewer than 500 people, while there are 2,501 places of between 500 and 1,000.

Of the states, Illinois leads with 930 incorporated towns, and Pennsylvania comes next with 833. New York has 438 such places. There are no incorporated municipalities in Alaska. The incorporated places contain in the aggregate, 35,849,516 inhabitants, as compared with a total of 26,079,828 persons

living in incorporated places in 1890.

The combined population in the incorporated towns and cities constitute 47 per cent of the population of the entire country, as against 41 per cent in the towns in 1890. In the state of 69 per cent in 1890. In six other states. namely, Massachusetts, Illinois, Rhode Island, Pennsylvania, Colorado and Connecticut, more than two-thirds of the people live in the incorporated places. Mississippi has the smallest percentage of its people living in the towns, the percentage being 15.

THE FARMERS' COLLEGE AND EX-PERIMENT STATION.

This week is peculiar in that it witnesses the closing of the year's work in the colleges and the State University. While young men and women from the farms furnish a large proportion of the students for the University and all of the denominational colleges, the institition which is more especially that of the farmers is the state agri-cultural college at Manhattan. This school has long enjoyed the distinction of being the largest institution of its

kind in the world. There were 1.321 students enrolled during the year just closing. These are classified as follows: Post-graduates 40, fourth year 74, third year 80, second year 183, first year 348, preparatory 318, special 21, hospitants 2, dairy 72, farmers' short course 109, domestic science short course 47, apprentices 79, counted twice 52.

Of these, 1,261 came from 85 counties in Kansas, and 60 came from 20 other The record of attendance states. shows an almost uninterrupted increase from 207 in 1878-9 to the 1,321 of the present year. When one reflects upon the advantages of an education at the agricultural college, and then remembers that Kansas has very many thousands of boys and girls who ought to have these advantages, the magnificent attendance shown is insignificant compared with what it ought to be. Every young man and woman in Kansas ought to have the advantages of a conlege or university education. state should, and ultimately must, provide facilities for thousands instead of hundreds at the agricultural college. True, no state sends a larger proportion of its youths to college. It is also true that the young people of no state outrank those of Kansas after they leave school. The latest catalogue of the agricultural college shows that its graduates have been sought to fill chairs of instruction in institutions of learning from the Atlantic to the Pacific. It was one of our agricultural college boys who, now holding a position in one of the old New England colleges, recently startled the scientific world by measuring the heat received from some of the fixed stars. One of our agricultural college boys is a professor in a similar institution in Nova Scotia; another in the University of Vermont; another in Armour Institute Chicago; another in the great Leland Stanford Uniersity in California, and so on. Several are engaged in original investigations for the U.S. Department of Agriculture, and others for various states. One of the greatest gains for the state is the application of science to agriculture on their own farms or on the farms of employers which is being made by those who go out from the college prepared to make such applications intelligently.

The courses of study are arranged with especial reference to what the student needs to know. The value of mental discipline and development is not underestimated, but it is found that this may be acquired as well by acquiring knowledge that one may use in after life as by attention to that which is sure to be forgotten for lack of use.

Under the same management with the college and closely associated with it is the Kansas Experiment Station. The purpose of this is for original research touching the problems of the farm. It is scientific and practical in its experiments. The problems which confront the farmers of Kansas differ in a marked degree from those pre sented elsewhere. This is partly ow-ing to the fact that the border land between fertility and semi-aridity extends through this state. It is also the division between the cold climate of the North and the heat of the South. Grains and fruits adapted to Kansas may be, and in many cases are, out of place elsewhere, and vice versa. In-sects and plant diseases require special study and feeding problems reto be worked out in Kansas. need has been held, and rightly, too, that to be fully adapted to Kansas conditions, many of our grains and grasses snould he bred to the environment. Indeed the field for experimentation is so broad and so inviting as to present to worthy ambition its great opportunity. In some lines of experimental work Station the Kansas has done its full part. Its farm bulletins are freely quoted by the authorities. The chemical and some other results stand well in the world of applied science. But it must be confessed that, while as an educational institution ours stands at the head of its class, the experiment station work has been surpassed by other state stations whose \$15,000 a year from the U.S. treasury was no bigger and had been received no longer than ours, and whose opportunities for making enviable records were not better than those presented in Kansas. The Kansas Farmer is of opinion that our state station should hold a lead in experimental work as pronounced as that in the school work. It further be-lieves that the regents will see to it that our station makes the most of its

opportunities.

There is one more observation to make as to the institution at Manhat-

Our college is other state schools. therefore subject to being robbea of workers who ought to be kept. It will be impossible to remedy this until the legislature shall have made sufficient provision. But it must be remembered that the Kansas youth measures up best in every test. He is entitled to the best possible opportunity for aevelopment and preparation. This will cost money, but it will be money well invested.

Condition of Kansas Crops June 1.

The Kansas Board of Agriculture on Friday, June 7, issued a report covering the crop situation in every neighborhood, June 1, but dealing more in detail

with the wheat, oats, and corn.

Based upon 100 as an entirely satisfactory condition the winter wheat condition for the whole state on the date mentioned was 82, a decline of 17.8 per cent since the report of April 5. Three counties, Allen, Osborne, and Riley, report a condition of 100, and 25 other counties range from 90 to 97. Prior to June 3 there was a shortage in rainfall, the effects of which were beginning to be noticeably harmful, and accounts for most of the lowered condition, but since then many portions of the state have had more or less rain, and at a time to prevent imminent diminution in yield, and many others have not. In various localities some injury has been done by Hessian flies or other pests, but such damage has not been general.

Commenting upon matters relative to the crop the secretary says: "All re-cent figures received indicate that the present Kansas winter wheat acreage is a very considerable per cent larger than has at any previous time been officially estimated, and place it close to, if not somewhat above, the largest ever recorded, viz.: 5,110,873 acres, harvested in 1893. Unique by leadership in wheat production, as in various other beneficent undertakings, and her breadstuff output being such a potent factor in the country's commercial and financial affairs, Kansas and her wheat situation are always profitably prolific themes for the enterprising sensation-monger, and the traveling "expert," with their faithful coadjutor, the headline writer, and in no other year than this have these genial gentlemen dis-played more tireless industry in earning their bread by the sweat of their pencils out of Kansas wheat. Since the growing season began a diminished yield has, from their standpoint, seemed to promise them more bread than they could realize if a full crop were harvest-ed. With this in mind the first at-tempts to lessen the crop were through introducing, by telegraph, a supposedly very destructive green louse from Okla-homa, naturally via Sumner, that being the greatest wheat-producing county in the world. The green louse proved so inefficient as a successful destroyer that resort was early had to the Hessian fly, which, although worked overtime, failed to seriously harm the wheat, except in a very few localities. Following the fail-ure of the fly, and while a cloudless sky was making possible the harvesting and curing in a perfect condition of the largest and best first-cutting of alfalfa yet grown, the dry weather and the chinch bug have been utilized zealously for the work of havoc, and if these agencies of destruction invoked so often in the past ninety days fail to do service there will yet be time for the exploiting of various other destroyers before the crop is entirely garnered; likewise a continuation of the alarming stories about the probability of losing much of the wheat by lack of men for its gathering, which have been so staple for several weeks. Yet, in spite of unkind. heedless, inconsiderate and indefensible fictions to the contrary. Kansas seems on the eve of harvesting a pro-digious total of high grade winter wheat; a total such as some other very creditable agricultural states could not reach by aggregating their product of a century, and not an acre of any value in all the millions will fail of reaping."

The present area in corn as estimated by correspondents is approximately 6,900,000 acres, or a half million less than one year ago. The condition for the state is 81.38, as against 93.2 one year ago, and 90 two years ago. No county reports a condition of 100 and but very few of the real corn counties reach 90. The backward and extremely cool spring followed by protracted dry weather have delayed planting, germination and cultivation nearly every-

Official returns of this year's area devoted to all field crops have been received from 46 of the 105 counties, and disclose some surprising facts. For instance, each county reports an intan. Salaries are lower than in many creased wheat acreage, Barber leading

with a gain of 208 per cent, and fourteen other counties showing increases ranging from 20,000 to 37,000 acres, while the whole 46, including a dozen or more of the foremost wheat counties, advance over their last year's sowing 24.4 per cent. It is likewise of interest to note that with one or two exceptions the corn area in each of these counties is considerably reduced; the decrease averaging a trifle over 12 per cent, and closely corresponding in some counties to the increases shown in the acreage of wheat. The corn acreage is less than one year ago by 5 to 25 per cent even in such great corn-growing counties as Cloud, Coffey, Jewell, Linn, Neosho, Phillips, Pottawatomie, and Smith.

The following table shows by counties the present estimated acreage of winter wheat; its condition, the condition one year ago, last year's yield per acre, the present condition of corn, and the condition one year ago:

V. *	WH	EAT.		(ORN	
Counties.	Estimated Whes:	Present Condition	Condition one year ago	Last yr's yield per acre, bu	Present corn condition	one year ago
Bourbon Brown. Brown. Butler. Chase. Chautauqua. Cherokee. Clark. Clark. Clark. Cloud. Coffey. Comanche. Cowley. Crawford. Decatur. Dickinson. Doniphan. Douglas. Edwards. Ellk. Ellisworth. Franklin. Geary. Gove. Graham. Grant. Gray. Greenwood. Hamilton. Harper. Harvey. Haskell. Hodgeman. Jefferson. Jewell. Jehrson.		93 94 72 90 85 91 91 91 91 91 91 91 91 91 91 91 91 91	99 100 103 199 100 107 107 103 106 90 0 52 107 107 102 102 102 102 103 105 106 106 101 101 102 102 102 102 101 101 105 102 102 100 102 101 101 105 101 105 101 105 101 105 101 105 101 105 102 100 102 101 101 105 101 105 101 105 101 105 101 105 101 105 101 105 101 105 101 105 101 105 101 105 101 105 101 105 101 102 101 105 101 102 101 102 101 102 102 100 101 101	21 17 20 18 19 15 20 22 21 17 19 110 20 20 10 20 20 11 10 20 20 11 10 20 20 11 10 20 20 11 10 20 20 11 10 20 20 11 10 20 20 20 11 20 20 20 11 20 20 20 20 20 20 20 20 20 20 20 20 20	864 888 877 880 892 997 888 887 77 76 888 888 75 77 76 888 888 75 77 76 888 888 75 77 76 888 888 875 915 888 888 875 915 888 888 875 915 888 888 876 915 888 888 876 915 888 888 876 915 888 888 876 915 888 888 876 915 888 888 876 915 888 888 876 915 888 888 876 915 888 888 876 915 888 888 876 915 888 888 876 915 888 888 876 915 888 888 876 915 888 888 876 915 888 888 876 915 888 888 888 888 888 888 888 888 888 8	100 102 104 90 985 100 988 92 988 995 990 990 988 988 991 995 995 995 995 995 995 995 995 995
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The estimated acreage is slightly above that of last year, but the prospect is not promising. The condition for the state is only 60, although in several of the northwestern counties the figures are much higher. One county, Sheridan, reports 100, followed by

OATS.

Other counties range downward to as low as 31 in Atchison.

ALFALFA.

General average 95. Seventy-eight counties, in which nearly all the larger acreages are found, report conditions ranging from 90 to 115. A considerable increase in acreages is evident.

SORGHUMS.

Continued interest in the various sorghums for forage and grain is indicated by the large acreage reported. Although too early to report with much definiteness the condition is placed at 85.

OTHER CROPS.

Spring wheat condition, 80; potatoes, 83; broom corn, 81; flax, 73; barley, 73; castor beans, 78; tame grasses, 85; apples, 73; peaches, 82; grapes, 89; cherries, 96.

No reports of disease among live stock have been received from source.

The Outlook for Crops. SPRING WHEAT.

Preliminary reports to the Department of Agriculture of the spring wheat acreage indicate a reduction of about 1,200,000 acres. or 6.4 per cent. Of the twenty states reporting 10,000 acres or upward in spring wheat eight report an increase, aggregating about 34,000 acres and twelve a decrease amounting to about 1,235,000. There is an increase in acreage of 10 per cent in New Mexico, 7 in Nevada, 4 in Arizona, 3 in Michigan, 2 in Montana and Utah and 1 per cent in Wyoming and Washington, while in Iowa there is a de-Washington, while in lowa there is a decrease of 13 per cent; Oregon, 8; Kansas, 7; Wisconsin and Minnesota, 6; Illinois, Nebraska, South Dakota, North Dakota, 5; and Colorado 2 points. The average condition of spring wheat on June 1 was 92.0 as compared with 87.3 at the corresponding data last year and 91.4 responding date last year and 91.4 on June 1, 1899. The mean of the June averages for the last ten years 1s 92.6 and for the last 15 years 92.7. The averages of the principal states are as follows: Oregon, 95; California, 94; Minnesota, 93; Iowa and South Dakota, 92; North Dakota, 91; Wisconsin, 89; Nebraska, 88.

WINTER WHEAT.

The average condition of winter wheat declined during May 6.3 points, the condition on June 1 being 87.8, as against 94.1 on May 1. On June 1, 1900, the condition was 82.7 and on the cor responding date in 1899, 67.3. The mean of the June averages for the last ten years of winter wheat is 81.2 and for the past fifteen years 82.3. The principal averages by states are as follows: Maryland, 100; Virginia, 98; Pennsylvania, 96; California, 92; Ohio rennsylvania, 96; California, 92; Ohio and Indiana, 90; Tennessee, 88; Kansas, 87; Missouri, Illinois, and Oklahoma, 84; Michigan, 68; and Texas, 46. The low condition in Texas is due to drought and the ravages of the wheat plant louse; in Kansas, Oklahoma, and Missouri the group has been described. souri the crop has been damaged by the Hessian fly and by drought; in Michigan the Hessian fly has seriously injured the crop and it has done considerable damage in portions of Indiana, Illinois, and Kentucky.) The averages of condition relate strictly to the crop still under cultivation June 1.

OATS.

The total reported acreage in oats is smaller than the acreage harvested last year by 3.8 per cent. There is an increase of 2 per cent in Wisconsin and 1 per cent in Minnesota and a decrease of 8.3 per cent in Ohio, 8 in New York, 6 in Indiana, Illinois and Kansas, 5 in Iowa and 2 in Pennsylania and Michigan. The decrease in the larger producing states is offset to some smaller acreages.

The average condition of oats is 85.3 against 91.7 on June 1, 1900; 88.7 at the corresponding date in 1899, and a 10 year average of 90.0. Of the states having 1 million acres or upward in oats Pennsylvania reports 3 points and Ohio and Michigan 2 points above their 10 year averages, while Minnesota and new York report 1 point, Wisconsin and Nebraska 2 points, Illinois 3 points, Indiana 3 points, and Kansas 12 points, respectively, below the mean of their June averages for the last 10 years. In Iowa the condition is reported as 94, corresponding with the 10 year average in that state.

The acreage reported as under parley is 1.2 per cent smaller than the area harvested last year. There is an incrase of 7 per cent in California; on ty, Sheridan, reports 100, followed by incrase of 7 per cent in California; on discomfort of dust was regarded but this island. He estimates that their Gove, Graham, Osborne, Thomas, Scott the other hand there is a decrease of little.

Silver Lake, Soldier, Menoken, Grant-Chronicle.

in Wisconsin and South Dakota, 6 per cent in Iowa, Kansas and New York, and of 8 per cent in North Dakota BARLEY.

The average condition of barley is 91.0 against 86.2 on June 1, 1900, 91.4 at the corresponding date in 1899, and at the year average of 88.5. The ten year averages are exceeded by 12 points in California, 4 in Kansas, 3 in South Dakota, and 2 in New York, while Minnesota reports 7, Wisconsin and North Dakota 3, and Iowa 2 points

respectively below such averages.

The acreage under rye shows a reduction of 1.9 per cent from that harvested last year. In Pennsylvania the area is reported the same as last year, while in New York there is a shrinkage of 4 per cent. Kansas reports a de-crease of 2 per cent, Wisconsin 3 per cent, and Iowa 10 per cent, these ing the only other states having 100,000

acres or upward in rye.

The average condition of rye is 93.9. as compared with 87.6 on June 1, 1900; 84.5 at the corresponding date in 1899, and a ten year average of 89.4. In Pennsylvania, New York and Kansas the ten years' average are exceeded by 6, 1 and 3 points respectively, and in Wisconsin and Iowa the condition figures are 4 points above such aver-

The acreage and condition of clover for the county as a whole can not be satisfactorily determined, but the changes in the principal states have been reported. An increase in acreage of 6 per cent is reported in Wisconsin, 5 per cent in Michigan and Nebraska, 3 points in New York and Kansas, and 1 per cent in Iowa. In California the acreage is reported as being the same as last year. In Indiana, Minnesota and South Dakota a decrease of 4 per cent is reported, in Pennsylvania and Missouri 3 per cent, and in Illinois 2 per cent as compared with the acreage of last year. As to condition, Ohio reports 12 points above the ten year average, Nebraska and Wisconsin 10 points, New York and Michigan 9 points, clover states re-porting below such averages are Mis-souri 13 points, Pennsylvania 11, California and Illinois 3 points, and Minnesota 1 point. In Kansas the condi-tion is reported as 91 corresponding with the average condition in that state for the past ten years.

EUROPEAN CROPS.

The Mark Lane Express in its weekly

crop review June 10 says:
"Owing to the deficiency in rain, English hay inevitably will be considerably below the average and importers who are not now complaining of the plethora of dry food stuffs, such as oats and maize, will find a good sale for them long before this time next year.

"It may be added that with foreign wheat we are not at all overstocked. The official report shows the French wheat crop is better than anticipated so that if the week-end markets are depressed, it is only the sure large coincident import requirements in England, France and Germany that a large surplus both in America and Russia could be adequately balanced. The present outlook is that there will be a large deficiency both in England, Germany and a large surplus in the United States and Russia. Therefore France seems to hold the scale and confirmation of the present news is awaited with interest. The spread of rust in Hungary is serious. Unless it rains soon, the crops will be gravely injured.

"In Austria the prospects are regarded as very unfavorable and the agextent by increases in states having Hungary prospects might in the present state of trade alter the balance of power and shift the control of the wheat and flour markets from the buyer to the seller.'

The Horticulturists Meet.

The June meeting of the Shawnee County Horticultural Society occurred at the home of Mr. Ezekiel Marple a few miles north of the city. A large number were in attendance. It is a good place to go. Aided by his generous wife and daughters, Mr. Marple keeps open house at all times, and especially when the society meets there is nothing undone that will contribute to the comfort and pleasure of every one, even the "stranger that is within The morning was delightthe gates." fully cool for the ride thither, and the

ville, Kilmer, Mission Center, and Topeka were well represented.

A very bountiful dinner was served. The tables were spread in the shade of large trees. By the law of hospitality expansion was strictly enforced, and no one seemed to demur. After a pleasant hour of social enjoyment the meeting was called to order by the president, A. E. Dickenson, and a very instructive season followed, the program being quite interesting and fully carried out.

The subject of raising cherries, beginning with the necessary kind of soil. proper planting culture, period of growth, etc., were thoroughly dis-cussed. In fact, as Judge Wellhouse expressed it, one could begin successful cherry culture for the market from the valuable information so definitely expressed by Messrs. Smith, Ham, Cecil, Vanorsdal, and others. All confirmed Mr. A. B. Smith's assertion that a dry soil is necessary, that the Early Rich-mond and Morello are most successful in this country, and that the cherry is a money making fruit to raise. Mr. Cecil considered the "Wrag," which originated in Iowa a failure here. A general discussion brought out many minor points, but also confirmed the three essentials given above. Mr. O. F. Whitney presented a very good paper or "Experience in Handling Small Fruits," covering the ground so remarkably well that it was requested by the society for publication in Kansas Farmer. [It will appear next week, Editor.]

Mr. Cecil exhibited (specimens of minor points, but also confirmed the

Mr. Cecil exhibited specimens of peaches, plums, and eleagnus longipes, a pretty and delicious little fruit from Japan. Also specimens of the curculia, that were captured by the "parring" method, which he pronounced more successful than any method in the curriculum of insecticides.

After the usual tilt with witticisms the meeting adjourned with many pleasant words for the generous entertainment provided by Mr. Marple and his family. KITTIE J. MCCRACKEN, Secretary pro tem.

Observations by a Kansas Man.

EDITOR KANSAS FARMER:-We left Topeka on Monday, May 30, amid dry surroundings and baked earth, and found the same conditions existing through Missouri and the western part of Illinois. Waterless creeks told the story of what was wanting to com-plete the growth and insure satisfactory harvests during the present sea-son. When within 100 miles of Chi-cago, more evidence of moisture was noticed; still corn, in most instances, was not more than 2 or 3 inches high. Clover fields in Kansas and Missouri showed but a meager growth, and one would think that farmers were very shy on alfalfa. June, more than any other month, gives hope that the em-brio plants will reward the toiler with that which makes wealth and happi-

Wednesday afternoon, as we were traversing the beautiful thoroughfare of Michigan avenue, to visit the Panorama of the Battle of Manila, black, threatening clouds rose in the northwest that promised to almost rival Dewey's famous battle of three years ago. This enormous painting is said to faithfully depicit that famous encounter that gave the United States supremacy in the islands bordering on the Orient. During the electrical display, when the guns of the American fleet were bat-tering the retreating Spanish boats, the storm outside burst in full force on the roof of the building, adding a thrilling finale, as the opposing guns were silenced amid the smoke of screaming shells and clouds of flying spray. During this engagement, the spectator ricultural affairs of the dual monarchy should be watched attentively, for the detrioration of French and Austria- glass in hand poses in full view on the iss in hand, poses in full view on the bridge, directing every movement, and at the cirtical moment exclaims, "Gridley, you can fire whenever you are ready." The whole scene is realistic and thrilling. A. E. JONES. Chicago, Ills.

Sea Lions of Argentina.

Off the territory of Chubit, Argentine Republic, are 10,000 sea lions, which are worth, in their double fur, \$300,000. These sea lions range about the island of Escondida, which has just been surveyed by the fisheries investigation commission of the republic. Dr. E. Lahitte, of the commission, has re-ported to the minister of agriculture what has been accomplished in the surveys and he himself is surprised at the number of sea lions to be found about

Borticulture.

The Rubber Industry of Costa Rica H. STUART HOTCHKISS IN THE FORESTER.

Among the numerous industries that have opened up in Costa Rica during past years the rubber industry perhaps stands first in its capabalities for development. For a long time rubber has been exported in quantities that have varied exceedingly according to de-mand and to the inclination and ability of the Costa Ricans to collect it at points convenient for shipment to the markets of the world. Yet as the following figures (furnished by the National Bureau of Statistics in San Jose) indicate, the exportation of recent years have shown a steady and con-sistent increase; excepting 1900, when there was a slight falling off from

Years.		. Kilograms
I Gain.		91 19
1885		
1886		9.91
1007		40.14
1000		11.00
1000		0.01
1000		10.19
1001		10.04
4000		20,00
1092		16.73
1893		9.82
1894		
1895		10 74
1896		10.14
1007	01000000000000000000000000000000000000	
1000		01.10
1900		72.19
1000		

EXPORTATIONS:

have been made and are being made to

cultivate them.

There are several orders of trees naturally indigenous in Costa Rica but foremost among them in commercial value are the Siphonia elastica and the Castilloa elastica. Their required environment is the same and their commercial value about at a par. How-ever, as most of the experiments have been made with the latter, this is the

one with which we will deal.

The Castilloa elistica is by nature a tree of the deep forests, feeding largely upon decomposed vegetable matter, and like all such, has most of its root system near the surface of the ground, although it also sends some roots deep into the soil to secure its constition and enable it to absorb a greater amount of moisture. This moisture is essential for the Castilloa to attain its best growth, but as standing water seems to be detrimental we usu-ally find it best developed where the drainage is good.

Like many other tropical trees whose wood is especially susceptible to decay, and which need protection when exposed, this species produces the Caucho in a milky fluid capable of drying in a few hours into a more or less moisture-proof cap, which furnishes a first-class protection to the wound.

Professor Pittier, of San Jose, who has made a study of the subject, states that "The Costa Rican rubber tree is generally met with on both the Atlantic and Pacific slopes to an altitude of about 2,400 feet, but that 2,000 feet would probably be the extreme upper limit of that tree, for profitable cultivation." It is very probable, however, that this last limit is too great as it yet an open question whether antation made where the natural plantation made where the natural growth is best, namely, from 800 feet down, will pay. But to return once to the habits of the Castilloa elastica. Growing among other trees and protected by their shade, the delicate bark is kept in the moist condition conducive to make of it the best possicular to gather their product systematically and economically. ble conductor for the Caucho, while the roots find ample moisture, and the leaves, which rapidly push their way above the tops of their rivals, find an abundance of light to assure their rapid and healthy growth.

There is a curious belief among many Costa Ricans that the milk of the fe-male tree is much richer in solid matter than that of the male tree, where this idea could have come from is difficult to imagine, as the Castilloa is not a dioecious tree, that is, the male and female flowers are not on

different individuals.

Like most other tropical vegetation the growth of this rubber tree is very rapid. In the first year it will reach a height of from three to five feet ac-cording to location, and many have been noticed that have attained a height of thirty feet in four years. These first four years represent the most rapid growth of the tree and from this point to the time they reach their maximum height, which may roughly

ber cultivation have been tried throughout the world, but in Central America at least, no experiments of the past can be called decided successes. There are, however, some under way at the present time, that bid fair to yield better results than their predecessors.

Realizing the uncertainty of making a paying proposition out of a rubber plantation alone, most of the experi-ments have been made in connection with banana or cacao plantations. Of these the former would appear to offer the best chance of success because it is invariably the case that where it is invariably the case that where in nature you find the most luxuriant growth of Castilloa trees, there is the place to lay out your "bananal" with assured success. Of course the banana will grow (often profitably) in land unsuited to rubber, yet as a rule most of the great plantations have been reclaimed from land once thickly covered with trees of the latter variety. ered with trees of the latter variety, that have fallen prey to the ravages of the rubber thief, who in his attempt to get the most possible gum from the tree at one cutting, usually succeeds in hilling it outright or runing it for a in killing it outright, or ruining it for a

future yield.

On a banana plantation near Jimenez,
Santa Clara Province, some experiments have been made that promise
to give good results. In this case the cultivator has placed beds of young rubber trees planted about a foot apart in the most favorable places. When these attain a height of from eight to fifteen inches they are transplanted With these general figures relating to the industry as a whole, it may be of interest to look a little more carefully into such details as the habit of the interest to look a little more carefully into such details as the habit of the interest in the little more carefully into such details as the habit of the little and the little more carefully into such details as the habit of the little more carefully into such details as the little more carefully into such details as the little more carefully into such details as the little more careful into such details as the habit of the of their roots are very near the surface trees and the interesting attempts that to it is impossible to plough around them and thus keep them free from the weeds which sap their energy. This, however, is not a serious problem, as the shade afforded by the bananas, which is so necessary to the commercial condition of the rubber tree, serves effectually to suppress all of the less tolerant kinds of vegation. It is found an advantage to pile dead leaves and other refuse around the base of the tree from four to eight inches in height and to a distance of from two to three feet from the trunk; by this means the rains of a tropical summer are prevented from caking the clayey soil into a hard impenetrable mass and the worms which are abundant, are brought to the surface, thus allowing the water to circulate freely through the holes that they have made and thereby dissolve vegetable growth

Near Port Limon on the coast many young rubber trees are grown merely for exportation and with no idea of tapping. These are grown among the cacao and when about a year are cut off just below the leaves, and the stems are packed in boxes, the layers being separated by a little dry earth. The market for this queer product is, I understand, Belgium whence

they are reshipped to the Congo. In the Talamanca district in southern Costa Rica the Indians have gained very favorable results by planting the trees in the forests in close imitation of nature and although they tax their vitality to the utmost by constant and severe bleeding, they are reported to derive a very respectable income from their venture.

Although the Castilloa is inferior to the Henia trees of the Amazon regions in many respects, both in the quantity and the quality of the yield, yet I think we may safely look for a steady increase in the rubber trade in Costa Rica as the subject of cultivation be-

The Fruit of the Ginkgo.

This curious tree, with its adiantum fern-like foliage, a voice from the past, as it were, and which makes such a picturesque feature in the streets and grounds of Washington, D. C., seems to claim attention as well from a utilitarian standpoint as from its decorative qualities. An argument in the case is set forth in a recent issue of the "Revue Horticole.'

The fruit of the Ginkgo is of the size, shape, and consistency of a small plum The fleshy portion, at first a bright green, turns yellow when ripe. Each flower stalks bears ordinarily but a single fruit. Sometimes, however, two perfect fruits are found. The pulp is rich in an oily substance, which at an ordinary temperature is of a butter-like consistency. The quantity of sugar contained in this oil is very small, and fermentation, supposing it to be easy to ascertain, would certainly yield only a slight be placed at about sixty feet.

Many interesting experiments in rub
Many interesting experiments in rub-

ARMSTRONG & McKBLVY BEYMER-BAUMAN urgh. DAVIS-CHAMBERS FARNESTOCK Pittsburgh. ANCHOR ECKSTRIN ATLANTIO BRADLEY BROOKLYN JEWETT ULSTER UNION BOUTHERN SHIPMAN COLLIER MISSOURI RED SEAL SOUTHERN JOHN T. LEWIS & BROS CO MORLEY BALEM CORNELL

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ized, would not cover the cost of pro duction.

It is, then, rather to the oily matter that attention should be turned in endeavoring to put the fruit to some practical use. This could probably be obtained by any process applicable to the olive. This oil, however, in three or four days' exposure to the air, develops a rancid odor.

According to certain authors it appears well established that the Chinese eat this pulp with much relish but it probably would not be to our taste. There are many other foods upon which we have not the same ideas. It is possible, however, that in spite of the rancid odor, the oil of the Ginkgo, in default of being used as a food, could be utilized for certain industrial preparations, such as soap.

But if the pulp of the Ginkgo has no

chance of figuring in the ordinary fare, it may be otherwise with the seed. This possesses a flavor somewhat like that of the walnut or hazlenut. The oil it contains does not become rancid like that of the pulp, and it is quite probable that this seed might be acceptable as an article of food. In common with the greater part of the Conifers, contains besides the oil a certain quantity of starch.

The writer referred to regrets that this beautiful Chinese tree is used only for ornamental purposes. "It flourishes for ornamental purposes. "It flourishes in deep mellow land, where there is no undue proportion of clay or flint, and shows a hardiness practically absolute, due in part to the decay of its leaves, which renders it almost indifferent to the rigors of winter. Moreover, the propagation is very simple, both by sowing immediately after the fruit is gathered, and by cuttings struck even in the open air at the end of the season. The wood of the Ginkgo appears to be strong, with a fine and close grain. All these qualities lead us to suppose that there would be some advantages in trying the species in forest cultivation, when, according to all appearances, it should give a good account of itself."—American Gardening.

Strawberry Culture-Post-Picking Work.

The best thing to do with a straw-berry field that has borne is to plow the plants under, run off rows three feet apart and sow in these drills and cover shallow, cow-peas at the rate of one bushel an acre. The residue of the fertilizer not appropriated by the straw-berries will make a fine crop of pea vines. The vines can either be cut for forage or tunrned under, to the very great benefit of the soil. Even when the vines are cut the nitrogen gathering roots are of much value. In fact many farmers insist that little or no good results from turning under the vines in addition to the roots. The facts seem to be that the nitrogen gathered by the pea is mostly stored in the roots, and that the vine is but little more than any other form of vegetable matter.

Land thus treated will be ready for strawberries the coming fall, winter or spring as may be most convenient to plant. Nor will it ever "berry out," as some one with more point than elegance has expressed it.

But this plowing up the old strawberry field presupposes that a young one has been planted the previous fall, winter or spring and is now coming on to replace the one destroyed. If this has not been done it will be necessary to rehabilitate the old field or bed.

not be expected as from a new plant-

ing. Proceed as follows:
"Bar off" the rows on each side, leaving a strip about a foot wide. Then ing a strip about a root wide. chop out the plants on this strip, leaving them about one foot apart. Vigor-ous new plants should always be left in

preference to old ones.

The plants chopped out, sow in the furrow along each side of the row a good commercial fertilizer rich in potash, at the rate of 300 to 500 pounds an acre, and then split the middles, throwing dirt back to the plants, but not smothering them. At the next hoeing the soil can be snugly settled around them. After that the culture should be

The cultivation of a young field is simple, calling only for diligence and a fair share of judgment. We do this by plowing the middles with a small tooth cultivator, stirring the soil to within about six inches of the plants and dropping back to eight inches as the plant and root growth increases. The unplowed space around the plants should be shallowly stirred with hoes often enough to kill grass and weeds before they come.

If the matted row system is to be followed the beds should be given a good and thorough cultivation before runners are allowed to take root. After that little more stirring than is required to kill the grass is necessary or prac-

ticable.

These young fields should have been manured in the drill before planting. Subsequent manuring is best done in the form of top dressing. This top dressing, which should be of a highly soluble fertilizer, can be safely and rapidly done in the following late fall, winter or early spring. The plants are then in a dormant state, except in the far south, and fertilizer sown on them will do no harm, provided the leaves are not wet with dew or rain. Should it be necessary to apply fertilizer to them at other times, it must be sown around and between the plants and not on them.—O. W. Blacknall, Vance Co., N. C., in Rural World.

Strawberries.

Mr. James Wood of Mt. Kisco, N. Y., in some remarks before the New York farmers, spoke of strawberries as fol-

"Strawberries grown in this latitude are much better than those grown in the south. Southern berries are deficient in quality and as you journey further and further northward you get them better and better, until you get your own; and better than your own are those grown still further north. Those of you who have eaten strawberries grown in Canada have eaten better fruit than you ever ate grown in a southern or middle state. Those of you who have eaten strawberries on the other side of the Atlantic have found the highest flavor and best quality in those grown in Scotland, and if you went to the extreme north of Scotland, you found them better than they were in the south. I do not hesitate to say that the best strawberries I have ever eaten were produced on the borders of the Artic Circle, in Norway. The straw-berries of Denmark are better than those grown anywhere on the continent of Europe further south."

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Brange Department.

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Conducted by E. W. Westgate, Master Kansas State Grange, Manhattan, Kans., to whom all correspondence for this department should be addressed. News from Kansas Granges is especially solicited.

NATIONAL GRANGE.

Master.......Aaron Jones, South Bend, Ind. Lecturer......N. J. Bachelder, Concord, N. H Secretary...John Trimble, 514 F St., Washington, D. C.

KANSAS STATE GRANGE.

Master. E. W. Westgate, Manhattan.
Lecturer. A. P. Reardon, McLouth.
Secretary. Geo. Black, Olathe.

Woman's Work in the Grange.

The grange is a home representative All its teachings relate directly to the home life. The woman's influence as the mother in the home has much to do with shaping the character of the coming men and women. Upon them largely depends the development of a better and higher manhood and womanhood among the rising generation.

To develop that higher step in the

grangé and among ourselves, we must advance our work and build up our order, and by so doing we develop manhood and womanhood, not only in the grange, but among ourselves, in our homes, and in every one associated with us. It is not doing good that makes people happy, it is doing better. Far too many sit with folded hands and say, "Oh, I have not time to train and develop the spiritual side of my nature." Moments that are properly employed make cultured men and women.

Education of women is a modern theme. It is not an interest of family or state here and there. Many a woman by her force has become noted and in-"Let not the past give the measure of woman's sphere, duty, or possibility excelsior" should be woman's motto, and let us make that our motto here in the grange, for we can proudly say that the grange is founded on educational basis.

We are advancing with equal honors ith the men. The women of the with the men. grange are thinking more and more, and the more they wisely think of their lives the more easily they will perform their duties, and the better will be the results in their homes and lives.

We need in every grange earnest men and women who are enabled to see what is noblest and best in life, and are always ready and willing to help the grange to a higher level, and to promote its interest and spread its principles and purposes among the agricul-tural classes of the State. More and more friendly and true fraternal feelings are cultivated among farmers and their families. Jealousy and envy are suppressed, and the good fellowship and peace of neighbors is promoted through the influence of the grange and its social intercourse.

This, one of the greatest educators

and civilizers of mankind, is everywhere encouraged. To promote and develop manhood and womanhood among ourselves and to spread our principles among farmers and others who are well wishers of society, frequent public meetings should be held, and the importance of agriculture, and the duties and rights of farmers discussed. This will tend to remove certain prejudices which designing persons have in some measure created in the minds of some farmers against our order.

Another thing, we must take so much interest in our order that even in the busy season a few members can meet and transact the necessary business. When all the granges see this fact we will see a marked improvement in their condition. We need to extend and build up our order, and gather more farmers within our gates, for here they may find and obtain essential aid in their chosen vocation, and their lives will be more pleasant and profitable, and their families will grow better morally, socially, and financially, and they themseles will be what they should be, the true nobility of the land.

Do the mothers in our different granges use enough influence on their children to join the grange?

Do the fathers converse enough with their boys when they come from their work in the field?

The father takes up his paper and does not want the boys to bother him. Do you ever stop to think that your boys are interested in the work as well as yourself?

You should remember that they each have some talent, and you should study to find out what it is and provide for

If they have a mechanical turn of mind, get them a kit of tools; if literary, get them a library. Talk to them

about anything that interests them, and help them in their efforts to improve their minds.

In the grange, parents learn to respect and feel an interest in the plans of their children. Parents, use your influence to have your children join, for we need the young people in the grange. One of the best features of the grange is the presence of the young people among its members.

Within the grange hall we strive to promote among the members more especially an interest in literary pursuits, which should interest the young peo-ple and advance our cause. This important branch of education should be more extensively encouraged, for how-ever long and dreary may be the pathway of life, they who are blessed with the possession of literary accomplishments can enjoy its pleasure.

Woman's work in the grange should develop thought, ability, sympathy, and a quickness of perception which enables her to grasp the new and weave it into the practicalities of her daily life, thereby giving her health and time to en-joy the beauties of her home and the companionship of her children, for after all, are not these the things that make life worth living?—Ida Gusten in Butte Grange, Oregon.

Worthy of Deepest Reflection.

No class of people are to-day paying a larger tribute to the great trusts and combines than the farmers. And no class of people are better situated to combat them and give them the real knockout blows that are so much need-They can if they will, and they will when they fully understand the situation. They must learn their lessons well, and then by united efforts, here, there, and everywhere, put down these giants who are going through the land trampling all individual effort and honest industry under foot.

A western paper sizes up the situation in such a good, practical way that it is worth repeating. There are many million of dollars in it if farmers would only study such object lessons, and use the dormant power they possess:

"A farmer and dairyman of Blue Earth County, Minn., had a few dry cows that he wanted to sell. He made them fit for the block and offered them to a Mankato meat seller, but was offered a price so ridiculously low, in pro-portion to the price of meat, that he was indignant; thereupon the meat seller said: 'You don't understand the situation. I dare not butcher these cattle here; if I did, Swift, Armour, and those fellows would ruin me. If I buy your cows I must keep and feed them until I can pick up enough more to make a carload, ship them to Chicago, pay the expenses of shipping and selling, and bring the dressed meat from there—at more expense—that I sell to you.' Or course, the farmer had heard of the 'meat combine' before; but it so hap-pened that its power and disposition were never made so vividly apparent to him, though he and all of his fellows in all the country had been for years, and still are, the victims of that combine, whose millions represent filchings from farmers' pockets. Is it any wonder that cattle are low in price notwithstanding their enormous decrease in number, reiatively to population?

"But why do the American people submit to such things? They do it because they think they must, and impotently exclaim: 'Well, what are we going to do about it?' Do about it? Let the people of Blue Earth County, for instance, combine and declare that they will buy no meat, except that butchered at home, nor any meat products save those made at home. Then let other counties follow suit; and people will have destroyed the combine, and they will have wholesome meat to eat, and no longer will embalmed and otherwise doctored meats kill ten of our soldiers to one killed by the enemy! more patriotic duty to destroy the despotism of the meat combine than to destroy that of Spain, for we might scrape Spain with a fine tooth comb and there would not be found a despotism more complete, more despoiling, more directly destructive of the interest and prosperity of her subjects than the one that struck our farmer friend in Mankato the other day."

Free rural delivery is "coming" to those who are "going" for it. The post-office department at Washington has plenty of business in this line just now. "Ask and ye shall receive." The grange asked for the system of free delivery for the rural districts, and has won its claims; now local granges can press the button and do the rest. Think of the convenience of a post-office on wheels coming right to your door, collecting and distributing letters, furnishing stamps, postal cards, money orders, and so forth, and all without extra cost because the grange believes in equal rights and equal privileges, that a farmer is just as good as any other man if he behaves himself.

It has always been the fault of some otherwise good members of the grange that they want victory all at once. A set back, or defeat for a time, unnerves them, and they lose heart. These things are a part of the discipline of life and we may add of the grange also. Our ritual tells us "difficulties are but opportunities to test our abilities." Henry Ward Beecher once said, "It is defeat that turns bone to flint, and gristle to muscle, and makes men invincible, and formed those heroic natures that are now in ascendency in the world. Do not, then, be afraid of defeat. You are never so near to victory as when defeated in a good cause."

More and more the evidence is being brought to the front to show that the grange in its many years of battle for pure food has had a good cause, and that it is sure to win soon, if we will keep pushing it along. Such items as the following are helping to create a proper public opinion:

The annual report of the Connecticut agricultural experiment station shows that adulteration of foods sold in the public markets is quite common. Sixtythree samples of fruit jelly examined showed adulteration. Out of 40 samples of marmalades and jams, only three were pure. Eleven coffee samples out of 45 were found adulterated, mainly by peas, chicory, wheat and pea-hull pellets. Out of 91 samples of ginger 24 were adulterated. Out of 48 samples of beer and ale 12 contained salislic acid. Examination of 19 samples of sausages and oysters, showed "embalming" by boracic acid, four samples of cream out of 18 containing the same preservative.

Mrs. Fremont in Old Age.

In the decline of her life Mrs. Jessie Benton Fremont, widow of the famous 'pathfinder" and first candidate of the Republican party for president of the United States, is living quietly in a pleasant home in the environs of Los Angeles, Cal. The home was a gift from the women of California, a token of their tender regard, and they are happy in knowing the wife of the "pathfinder," and the daughter of "old had finder," and the daughter of "old bullion" is in their midst, loving and be-

The Fremont cottage is one of the points of interest in Los Angeles. The grounds are full of tropical verdure, while the blossoming of the rarest roses and brilliant effect of flowering, climb-ing vines add greatly to their beauty. The home is filled with handsome old furniture and collections of travel, as well as many portraits and mementos of Gen. John C. Fremont.

Jessie Benton married for love while very young, and from the time of her marriage until the death of Gen. Fremont she shared with him most hap-pily every trial, every success, every rise and every reverse of fortune. Both were in exulting youth when Fremont had the certainty that on the Cahuenga plain he had completed the long hopes and great aims of wise men and secured that ocean frontier that now gives us a country from sea to sea.

While abroad in 1852-53 Mrs. Fre mont's life reads like a fairy tale. She was in London in the early days of Victoria's reign. To her the doors of the throne room were open; and for two hours she watched, in line with other diplomatic ladies, the beautiful procession of English women as they made their obeisance before the queen.

In Paris Mrs. Fremont felt much at

Sinking Spells,

fainting, smothering, palpitation, pain in left side, shortness of breath, irregular or intermittent pulse and retarded circulation all come from a weak or defective heart. these faults by building up the heart-muscles and making the heart-nerves strong and vigor-ous. Dr. Miles' Heart Cure is the remedy to use. It is

"I would have spells when I would get weak and faint and my heart would seem to stop beating, then it would beat very hard. I began taking Dr. Miles' Heart Cure and when I had used twelve bottles my heart was all twelve bottles my heart was all right." Mrs. J. L. TAYLOR, Owensboro, Ky

Dr. Miles' Heart Cure

is a heart and blood tonic of unequaled power and never fails to benefit if taken in time. Sold by druggists on guarantee. Dr. Miles Medical Co., Elkhart, Ind-

home, life there seeming but an amplification of her old French life in St. Louis: From her beautiful residence in the Champs Elysee she witnessed the official entrance of Louis Napoleon as emperor, the day so memorable to all the rulers of Europe, and rich in that vivid personality with which French history is so invested. During all their stay abroad the Fremonts took part in many brilliant ceremonials not only in London and Paris, but in Denmark, Austria and other foreign countries.

Few women have met more distinguished men and women of her time both at home and abroad than Jessie Benton Fremont, and her memories are rich with the vivid personality of famous characters in American, French, and English history in many of their domestic, political and military aspects. -Chicago Chronicle.

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Pedigree Registers.

The following list of the associations ex isting at present in the United States for the registry of pedigrees of pure-bred cattle, horses, sheep and swine, has beer carefully revised by the Breeder's Gazette and is believed to be complete and correct: CATTLE REGISTERS.

CATTLE REGISTERS.

American Aberdeen-Angus Breeders' Association—Thomas McFarlane, Harvey, Ill., Secretary.

American Devon Cattle Club—L. P. Sisson, Newark, Ohio, Secretary.

American Galloway Breeders' Association—F. B. Hearne, Independence, Mo., Secretary.

American Guernsey Cattle Club—W. Y.

American Guernsey Cattle Club—W. H. Caldwell, Peterboro, N. H., Secretary, American Hereford Breeders' Association C. R. Thomas, Kansas City, Mo., Secretary.

American Jersey Cattle Club—J. J. Hemingway, New York, Secretary.
American Jersey Hord Book—O. B. Hadwen, Worcester, Mass., Secretary.
American Polled Durham Breeders' Association—J. H. Miller, Peru, Ind., Secretary.
American Simmenthal Herd Book Association—John Mayer, New York, Secretary.
American Shorthorn Breeders' Association—John W. Groves, Springfield, Ill., Secretary.

tion—John W. Groves, Springheid, III., Secretary.

American Sussex Breeders' Association—
Overton Lea, Nashville, Tenn., Secretary.
Ayrshire Breeders' Association—C. M.
Winslow, Brandon, Vt., Secretary.
Breeders' Association of French Canadian Cattle of the United States—W. J. Mc-Murdy, Binghamton, N. Y., Secretary.
Brown Swiss Cattle Breeders' Association
TN. S. Fish, Groton, Conn., Secretary.
Dutch Belted Cattle Association of America—H. B. Richards, Easton, Pa., Secretary.

Hoistein-Friesian Association of America F. L. Houghton, Brattleboro, Vt., Secre-Maine State Jersey Herd Book—N. R. Pike, Winthrop, Me., Secretary.
Red Polled Cattle Club of America (incorporated)—J. McLain Smith, Dayton, Ohio, Secretary.
HORSE REGISTERS.

HORSE REGISTERS. HORSE REGISTERS.

American Association of Importers and Breeders of Belgian Draft Horses—J. D. Conner. Jr., Wabash, Ind., Secretary. American Breeders' Association of Jacks am Jennets—J. W. Jones, Columbia, Tenh., Secretary.

American Clydesdale Association—Alex. Gabraith, Janesville, Wis., Secretary.

American Hackney Horse Sodety—A. H. Godfrey, New York, Secretary.

American Percheron Horse Breeders' Association—S. D. Thompson, Chicago, Secretary.

retary.
American Saddle Horse Breeders' Association—I. B. Nall, Louisville, Ky., Secre American Shetland Pony Club-Mortimer Levering, Lafayette, Ind., Secretary. American Shire Horse Breeders' Associa-tion-Chas. Burgess, Wenona, Ill., Secre-

tion—Chas. Burgess, Wenona, Ill., Secretary.

American Stud Book (Thoroughpreds)—Frank R. Hitchcock, New York, Registrar. American Trotting Register Co.—J. H. Steiner, Chicago, Secretary.

American Suffolk Horse Association—Alexander Galbraith, Janesville, Wis., Secretary.

Gleveland Bay Society of America—R. P. Stericker, East Orange, N. J., Secretary.

German Hanoverian and Oldenburg Coach Horse Breeders' Association—J. Crouch, Lafayette, Ind., Secretary.

Morgan Register—Joseph Battel, Middlebary, Vt., Editor.

National French Draft Horse Association of America—C. E. Stubbs, Fairfield, Iowa, Secretary.

Oldenburg Coach Horse Association of America—C. E. Stubbs, Fairfield, Iowa, Secretary.

America—C. E. Secretary.
SHEEP REGISTERS.
Goat Breed

American Angora Goat Breeders' Asso-dation—W. T. McIntire, Kansas City, Mo., Secretary.

American Cheviot Sheep Society—F. E. Dawley, Fayetteville, N. Y., Secretary.

American Cotswold Association—George Harding & Son, Waukesha, Wis., Secre-taries.

Harding & Son, Waukesha, Wis., Secretaries.

American Hampshire Down Sheep Breeders' Association—Wm. H. Mills, Springfield, Ill., Secretary.

American Leicester Breeders' Association—A. J. Temple, Cameron, Ill., Secretary.

American Oxford Down Association—W. A. Shafor, Hamilton, Ohio, Secretary.

American Rambouillet Sheep Breeders' Association—Dwight Lincoln, Milford Center, Ohio, Secretary.

American Shropshire Registry Association—Mortimer Levering, Lafayette, Ind., Secretary.

tion-Mortimer Leveling, Secretary.

American Southdown Breeders' Associa-tion-Frank S. Springer, Springfield, Ill., tion—Frank S. Springes, Secretary.
Secretary.
American Suffolk Flock Registry Association—Geo. W. Franklin, Atlantic, 10wa,

Secretary.

American Tunis Sheep Breeders' Association—Charles Rountree, Crawfordsville, Ind., Secretary.

Black-Top Spanish Merino Sheep Breeders' Publishing Association—J. G. Berry,

Black-Top Spanish Merino Sheep Breeders' Publishing Association—J. G. Berry, Primrose, Pa., Secretary.
Continental Dorset Club—Joseph E. Wing, Mechanicsburg, Ohio, Secretary.
Dorset Horn Breeders' Association of America—M. A. Cooper, Washington, Pa. Secretary.
Hampshire Down Breeders' Association of America—C. A. Tyler, Nottawa, Mich. Secretary.
Improved Black-Top Merino Sheep Breeders' Association—L. M. Crothers, Crothers Pa., Secretary.
Improved Delaine Merino Sheep Breeders' Association—Edwin Hagenbush, Urbana Ohio, Secretary.
International Delaine Merino Record—U. S. Brouse, Kendallville, Ind., Secretary.
Michigan Merino Sheep-Breeders' Association—E. N. Ball, Hamburg, Mich., Secretary.
National Delaine Merino Sheep-Breeders'

clation—E. N. Ball, Hellicuts, Tetary.

National Delaine Merino Sheep-Breeders'
Association—C. C. Johnson, Cannonsburg
Pa., Secretary.
National Dickinson Record Co.—H. G.
McDowell, Canton, O., Secretary.
National Lincoln Registry Association—H. A. Daniels, Millington, Mich., Secretary.
National Merino Sheep Register Association—R. O. Logan, California, Mich., Secretary.

Breeders' Association—J. Horatio Earll, Skaneateles, N. Y., Secretary. Ohio Spanish Merino Sheep Breeders' As-sociation—Wesley Bishop, Troyton, Ohio, Secretary.

sociation—Wesley Bishop, Troyton, Ohio, Secretary.
Standard American Merino Sheep Breeders' Association—John P. Ray, Hemlock Lake, N. Y., Secretary.
Standard Delaine Spanish Merino Sheep Breeders' Association—S. M. Cleaver, East Bethlehem, Pa., Secretary.
United States Merino Sheep Breeders Registry Association—J. A. B. Walker, Enon Valley, Pa., Secretary.
Vermont Merino Sheep-Breeders' Association—L. A. Skiff, Middlebury, Vt., Secretary.

SWINE REGISTERS.

American Berkshire Association—Charles F. Mills, Springfield, Ill., Secretary.
American Chester White Record Association—Carl Freigau, Dayton, Ohio, Secretary.

tion—Cari Freigau, Bayon,
tary.
American Duroc-Jersey Swine Breeders'
Association—A. V. Bradrick, Shelbyville,
Ind., Secretary.
American Essex Association—F. M.
Stout, McLean, Ill., Secretary.
American Poland-China Record Co.,—W.
M. McFadden, West Liberty, Iowa, Secre-

American Small Yorkshire Club—George W. Harris, New York City, Secretary. American Tamworth Swine Record Association—E. N. Ball, Hamburg, Mich., Sec-

American Thin-Rind Record Association— F. Work, New Washington, Ind., Sec.

American Thin-Rind Record Association—
H. F. Work, New Washington, Ind., Secretary.

American Yorkshire Club—Mrs. E. W. Wilcox, Hugo, Minn., Secretary.

Central Poland-China Record Association—W. H. Morris, Indianapolis, Ind., Secretary.

Cheshire Swine Breeders' Association—H. J. Brown, Harford, N. Y., Secretary.

International Ohio Improved Chester Record—Herbert A. Jones, Himrod, N. Y., Secretary.

National Berkshire Record Association—E. K. Morris, Indianapolis, Ind., Secretary.

National Berkshire Record Association—E. K. Morris, Indianapolis, Ind., Secretary.

National Chester White Record—T. Sharpless, West Chester, Pa., Secretary.

National Duroc-Jersey Swine Breeders' Association—Robert J. Evans, El Paso, Ill., Secretary.

O. I. C. Swine Breeders' Association—C.

M. Hiles, Cleveland, Ohio, Secretary.

Ohio Poland-China Record Co.—Carl Freigau, Dayton, Ohio, Secretary.

Standard Chester White Record Association—W. H. Morris, Indianapolis, Ind., Secretary.

Standard Poland-China Record Co.—George F. Woodworth, Maryville, Mo., Secretary.

United States Small Yorkshire Record—D. S. Bascom, California, Mich.

Victoria Swine-Breeders' Association—H. Davis, Dyer, Ind., Secretary.

Gossip About Stock.

F. J. Little, who has a very well bred herd of Poland-Chinas at Soranton, Osage County, has sold his farm and will an-nounce a closing out sale soon.

The Zenner Disinfectant Co., advertisers of Zenoleum, cite competent testimony to show that Zenoleum cures calf-cholera and is also a wonderful specific for curing sore shoulders and gall cuts.

The stockmen of Grant County have organized the Grant County Live Stock Association, with John Dacy, president, and S. M. Alexander, secretary. The object of the association is mutual protection and the advancement of the live stock interests of the county.

Colonel Harshberger, of Lawrence, Kans., conducted the sale of surplus college farm stock at Stillwater, Okla., on the 6th inst. The sale being held the last day of commencement brought out a good crowd of the farmers and territorial officials; fully 500 were in attendance at the sale, which resulted in good prices.

The sale of registered Jerseys conducted by J. N. Harshberger for J. T. McConnell, of Baker, Kans., on the 6th inst., was very satisfactory to all concerned. Mr. McConnell concluded to disporse his herd on account of having outgrown his farm. This being a busy season of year and the sale being advertised only locally, the attendance was chiefly farmers. The average of sale for cows, \$50 and \$60. The highest price was \$30, paid by McHenry, of Kaker, Kans.

"I find it is no trouble to sell pigs, if you have the right kind of stuff and advertise them in the Kansas Farmer," writes Mr. Peter Bercher, of Richland, Kans., who is a new advertiser of Duroc-Jersey swine. Mr. Bercher reports the sale of all his sow pigs owing to numerous orders received through the Kansas Farmer, his only advertising medium. Among the recent purchasers are, Hiram Jenkins, Twin Mound; H. W. Steinmeyer, Volland; Fred Degzis, Twin Mound; Mike Shutz, Richland; J. C. Marchel, Lapeer; E. A. Drumm, Eskridge, and others.

The president of the National Duroc-fersey Record Association, J. B. Davis, of Fairview, Kans., in making a remittance on June 10, says: "Our trade has been good this season and we have received many inquiries through our card in the Kansas Farmer. The demand for bred gilts has been very great this season. Our herd is in fine business condition, not fat but thrifty, and all doing well. I have decided to hold my next annual sale on October 2, 1901, and expect to offer a few gilts bred to farrow in October; also a few yearling males."

Rocky Hill Shorthorns, the property of J. F. True & Son, Newman, Kans., is headed by Sempstress Valentine 157069, a half-brother to Lad For Me, Ruberta, and Rose O'Grady, all sired by St. Valentine. The other herd bull, Mayor 129229, was bred at Rocky Hill. He is a son of 8th Butterfly, of Valley Grove, by Cupid, a son of Imp. Salamis. Messrs. True & Son have some young bulls, both Scotch and Bates topped. Mary's 2d Waterloo, calved Oct. 7, 1900, weighs 825 pounds. He is sired by Waterloo Duke of Hazelhurst 11th 130723, dam, Princess Mary 3d by Imp. Salamis.

H. A. Daniels, Millington, Mich., Secretary.
National Merino Sheep Register Association—R. O. Logan, California, Mich., Secretary.
National Shropshire Record Co.—S. J.
Weber, Middleville, Mich.
New York State American Merino Sheep

Son, and F. J. Little; the Berkshire herds of E. E. Gardner, and W. H. S. Phillips; and the Shorthorn and Hereford herds of Louis and Charles Hothan. Mr. H. C. Leech has a herd of Duroc-Jersey swine and James Carpenter and John Cooper are also interested in Hereford cattle. Announcements of interest from these herds will appear from time to time in the Kansas Farmer.

Hogs Seli for 6 Cents in Kansas.

The Drovers' Telegram of June 7, 1901

The Drovers' Telegram of June 7, 1901, says:

Notwithstanding a tremendous increase in stocks of hog product in the West during the month of May and the heaviest receipts of hogs ever known for the season, the price to-day for top swine got back to \$6. After selling between \$5.80 and \$5.97½ for about five weeks, the top to-day stands the highest since April 25, when the highest price was also \$6. The extreme high point in April was \$6.17½ on the 4th and 12th. Those were the two high days of this year and, in fact, the highest days for any month since September of 1894.

The extreme top hogs in June of 1899, \$3.90. To-day's \$6 top was the highest for the month of June since 1893 when \$7 was paid. The man who got \$6 to-day can congratulate himself, too, that there has been only one June since 1893, or nearly twenty years, in which the price beat the figure received by him to-day. In June of 1883, the high point was \$7.05. Between that and 1893 the high June figure was \$5.75 in 1888.

Big Shorthorn Prices at Chicago. The two-days' Shorthorn sale held at Dexter Park amphitheater, Union Stock Yards, Chicago, was a highly successful event, bringing the highest prices of recent

Dexter Park amphitheater, Union Stock Yards, Chicago, was a highly successful event, bringing the highest prices of recent years.

The first day's sale consisted of a consignment of 44 head from the herd of George E. Ward of Hawarden, Ia. Forty cows sold for the sum of \$50,280, or an average of \$756.50 each, and 4 buils for \$1,640, or \$410 each, making a total of 44 animals for \$31,900, a general average of \$725 per head. The highest priced cow was Duchess of Gloster 34th, calved January 5, 1898, which sold to Randolph Bros. & Brown, of Indianola, Ia., for \$2,500, and the highest priced bull was a yearling, Mary's Valentine, which sold for \$725 to Archie Cochran, of Cherokee, Ia.

Yesterday's average exceeded the average made at the recent All Scotch sale here, which was \$719, and is the highest since the W. D. Flatt sale last August, which averaged \$793. With this exception yesterday's sales were the highest for several years. The cattic were all Scotch-bred and a large number were the sons or daughters of Mr. Ward's great stock buil, St. Valentine 121014. Mr. Ward had the misfortune to lose his bull last Saturday, by death from gravel of the bladder. A number of the St. Valentine calves, which were sold with their dams, were returned to Mr. Ward at \$400, an offer which he made on nearly all of them, but most of the buyers refused his liberal offer.

Walpole Bros., of Rock Valley, Ia., paid \$1,060 for May Blossom and \$475 for Indian Lass 2d. H. F. Brown, of Minneapolis, Minn., was a good buyer, taking Village Sempstress at \$650, Harmon's Athene bin at \$580 and Victoria of Meadow Farm 4th at \$580 and Victoria of Meadow Farm 4th at \$580. H. W. Welss, of Sutherland, Iowa, paid \$1,480 for Imported Mistletoe Flower. C. R. Steele, of Ireton, Iowa, got Lavender of Orchard Farm for \$1,300 and E. R. Stangland, of Marathon, Iowa, paid \$1,500 for Imported Coquette. The only Texas buyer was David Harrell, of Austin, who paid \$290 for a cow. The Biglers, of Hartwick, Iowa, were in evidence as usual, and among others got La

B. O. Cowan, of New Point, Mo., paid \$376 for Royal Crown, a bull, and \$230 for Ina's May.

The Drovers' Journal summary for the second day's, sale is as follows:

W. D. FLATT.

15 females brought \$16,095; average...\$1,073.00

9 females brought \$6,095; average...\$708.93

2 bulls brought \$6,690; average...\$305.60

11 animals brought \$6,690; average...\$305.60

12 animals brought \$8,775; average...\$625.73

2 bulls brought \$2,170; average...\$626.73

5 bulls brought \$2,170; average...\$44.00

19 animals brought \$2,170; average...\$796.81

4 bulls brought \$2,106; average...\$796.81

4 bulls brought \$2,106; average...\$796.81

4 bulls brought \$2,065; average...\$796.81

4 bulls brought \$2,065; average...\$796.81

526.25

15 animals brought \$4,855; average...\$816.63

GENERAL SUMMARY.

49 females brought \$4,855; average...\$816.63

11 bulls brought \$4,855; average...\$16.63

12 bulls brought \$4,800; average...\$16.63

13 bulls brought \$4,800; average...\$16.63

14 bulls brought \$4,855; average...\$16.63

16 animals brought \$4,900; average...\$16.63

11 bulls brought \$4,855; average....\$16.63

12 bulls brought \$4,855; average....\$16.63

13 bulls brought \$4,855; average....\$16.63

14 bulls brought \$4,855; average....\$16.63

15 bulls brought \$4,855; average....\$16.63

16 animals brought \$4,855; average....\$16.63

17 bulls brought \$4,855; average....\$24.66

GENERAL SUMMARY.

49 females brought \$4,855; average....\$16.63

12 bulls brought \$4,855; average....\$16.63

13 bulls brought \$4,855; average....\$24.66

14 bulls brought \$4,855; average...\$25.55

15 animals brought \$4,855; average....\$36.63

10 bulls brought \$4,855; average....\$36.63

11 bulls brought \$4,855; average....\$36.63

12 bulls brought \$4,855; average....\$36.63

13 bulls brought \$4,855; average....\$36.63

14 bulls brought \$4,855; average....\$36.63

15 bulls brought \$4,855; average....\$36.63

16 bulls brought \$4,855; average...\$36.63

17 bulls brought \$4,855; average...\$36.63

12 bulls brought \$4,855; average.....\$36.65

13 bulls brought \$4,855; average...\$36.63

14 bulls bro

nospitality and kindness, and we will not forget her next fall when the time comes for the International Live Stock Exposition. We will be here in force and will bring our best."

Mr. Cargill said: "It was truly a great sale and I am well pleased with the result. Chicago is the best place in the world to hold a sale like this."

The Hon. M. H. Cochrane said: "You may say that I never attended a sale better conducted than the one just closed.

The charming hospitality, the good natured readiness and the courteous treatment received from the management of the Stock Yards Company are in themselves worth a whole lot. And the good feeling and the enthusiasm at the rirg side! Why, the bidding was so spirited that it reminded me of artillery fire or shorp-shooting on a skirmish line. We are all well pleased with the sale and will come again." come again."

THE DOLLARS AND CENTS OF IT.

The Stock Breeders' Annual, a valuable bulletin of 40 pages, has just been published by the Kansas Farmer Company, of Topeka, Kansas. The first part consists of a discussion of the values of feeding stuffs, a table of composition and money values of all common reeding stuffs, and a discussion and a table of feeding standards. With this bulletin at hand any farmer who can "do a sum" in arithmetic can determine how to make balanced rations of the feeds he grows on his farm, or, if he has not the necessary materials, the book will show him what he can afford to pay in the market for such feeds as will enable him to make balanced rations suitable for every class of animals on the place. This part of the Annual was written by E. B. Cowgill, editor of the Kansas Farmer.

It has been made a part of the instruction of the students in feeding at the Kansas Agricultural College, and has been copied by Secretary Coburn in one of his invaluable reports.

The second part of the bulletin contains the Kansas Improved Stock Breeders' Classified directory for 1901, compiled by H. A. Heath, Secretary. An edition of 10,000 copies has been printed. As long as they last any reader of this paper can obtain a copy for a two-cent stamp to pay for postage and mailing.

No Room for Doubt.

"You speak with great positiveness about the sincerity of our friend's re-

ligion."

"There can be no doubt whatever of his sincerity." was the answer. "Why, sir, that man would rather go to church on Sunday than play golf."—Washington Star.

Pullman Ordinary Sleeping Cars for Tourists

are the most comfortable, commodious means of travel for large parties, intending settlers, homeseekers, hunting parties.

These cars are run on the Union Pacific daily from Nebraska and Kansas points, and are fitted up complete with mattresses, curtains, blankets, pillows, etc., requiring nothing to be furnished by the passengers. Uniformed porters in charge of the cars, are required to keep them in good order, and look effort the wents and comforts of look after the wants and comforts of all passengers. The cars are new, of modern pattern, and are almost as conand comfortable as first-class Palace Sleepers.
For full information call on or ad-

dress, F. A. Lewis, City Ticket Agent, 525 Kansas Avenue, J. C. Fulton, Depot Agent.

J. G. PEPPARD,

1400-2 Union Ave., KANSAS CITY, MO

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DRS. THORNTON & MINOR, 1004 Oak St., Kansas City, Mo.

WEEKLY WEATHER CROP BULLE-TIN.

Weekly weather crop bulletin of the Kansas Weather Service, for the week ending June 13, 1901, prepared by T. B. Jennings, Station Director.

GENERAL CONDITIONS.

Better conditions prevailed this week; the weather was warmer, and fair to good rains have fallen except in the extreme southwestern and northwestern counties, with heavy rains in the central. Hall storms occurred in several counties.

RESULTS. EASTERN DIVISION.

Wheat is beginning to ripen in the northern counties, but the heads are not nining well in Doniphan; harvest of the May variety has begun in Montgomery and will begin in Wilson this week. Corn has been kept well cleaned, and since the rains and warmer weather began it has begun to grow. The strawberry crop was greatly shortened by the dry weather. Cherries are ripe in the central and northern counties and are abundant. Apples are in good ties and are abundant. Apples are in good condition in Shawnee, but are short in Nehama and dropping in Leavenworth. Grass has been hurt in the northeastern counties by the drought. The first crop or alfalfa is large and has been well cared for; the second or seed crop is now growing finely. ing finely.
Allen County.—Very dry; must have rain

Allen County.—Very dry; must have rain soon.

Anderson.—Light rains have freshened vegetation and helped corn, but more is needed.

Atchison.—Wheat beginning to ripen; grass and hay crop damaged by dry weather; corn in good condition for growing; fruits of all kinds doing well.

Bourbon.— Corn a good stand, has been well worked, and looks well; oats and flax poor.

Brown.—Wheat improved in color; corn generally cultivated once, but is not growing well; oats poor; tame hay generally light.

Chase.—Wheat is nearly made and will be a fair crop; corn improving; first crop alfalfa nearly all in stack; oats very poor; some fruit and gardens damaged by Friday's hail.

Cherokee.—Wheat and corn doing well, though corn is small; oats and tame hay short crops.

Coffey.—Wheat in good condition; oats

apples and peaches fine; stock water low; cherries ripe and plentiful.

Wilson.—Some wheat will be cut next week; first crop alfalfa was very heavy; grape vines very full.

Woodson.—Wheat and corn have been suffering for rain; alfalfa harvest over; garden vegetables plentiful.

Wyandotte.—Everything slightly improved.

MIDDLE DIVISION.

MIDDLE DIVISION.

The condition of the wheat crop, generally, has been improved, though some damage was done by hail in several counties, and in the bottom fields in Saline by wind and heavy rains; May-wheat harvest has begun in the south. Corn fields are clean and under the improved conditions corn is doing better. The first crop of alfalfa is being cut in the northern counties and is generally in stack in the other counties. Oats are a poor crup in Dickinson, not much improved in Ottawa, short but much improved in Marion, and heading well in Rice, light crop in Seug wick, look well in Reno, and fine in Washington. Cherries are ripe or nearly ripe in most of the counties. Apples are dropping in Barton and give poor promise in Smith.

Barber.—Hot, dry week; vegetation suffered badly, followed by much needed rain on 7th; soft wheat a good crop and ready to cut; hard wheat in dough and badly shrivelled; corn doing fairly well; early potatoes abundant; strawberries fine and plentiful; beans and peas on market; cherry crop short.

Barton.—A hall storm damaged the

plentiful; beans and peas on market; cherry crop short.

Barton.—A hall storm damaged the wheat in a path 25 miles long; cherries ripening; apples dropping; potatoes on the market; light local showers help growing crops

Atchison.—Wheat beginning to ripen; rarss and hay crop damaged by dry weather; corn in good condition for growing; ruits of all kinds doing well.

Bourbon.— Corn a good stand, has been well worked, and looks well; oats and lax poor.

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Cherokee.—Wheat and corn doing well, though corn is small; oats and tame hay short crops.

Corn in good condition, but light crop.

Cloud.—Wheat and corn look better than last week; alfalfa is being cut, a fine crop. Cowley.—Early wheat harvest progressing, fine crop, will run over 20 bushels per acre; corn growing rapidly; rain has helped gardens; some damage from hall; May consider the proved by good rains; some damage to wheat in south part by hall; oats very poor; strawberries and cherries in market. Edwards.—Some wheat damaged, other lecks in good condition; corn fine; potatoes on the corp.

Cloud.—Wheat and corn look better than last week; alfalfa is being cut, a fine crop. Cowley.—Early wheat harvest progressing, fine crop, will run over 20 bushels per acre; corn growing rapidly; rain has helped gardens; some damage from hall; May corn is fine and stock doing well.

Dickinson.—Wheat and corn maket in south part by hall; oats very poor; strawberries and cherries in market. Edwards.—Some wheat damaged, other lecks in good condition; corn fine; potatoes in good condition generally, yields estimated from condition generally, yields estimated from condition generally, yields estimated from condition generally.

Washington.—A good growing week; wheat, oats, and grass look fine; alfalfa cut; corn being cultivated.

WESTERN DIVISION.

washington.—A good growing week; wheat, oats, and grass look fine; alfalfa cut; corn being cultivated.

WESTERN DIVISION.

The wheat crop, though shortened by dry weather, has improved and is mostly headed, but has been damaged by hail in places. Corn has improved. The first crop of alfalfa has nearly all been cut and most of it stacked, it is a fine crop. The grass is fine in Ford, and doing well in Rawlins, but curing on the ground in Ness. Rye is in bloom in Hodgeman. Cherries are ripening in Norton.

Clark.—Too dry to plow, everything needs rain.

Decatur.—A poor week for crops, everything standing up well and a large crop is possible; first alfalfa crop mostly cut, and is a heavy crop.

Finney.—Cutting first crop alfalfa in progress, crop good; rain needed.

Ford.—Very heavy rains with light hail; wheat, corn, barley, and oats much improved; alfalfa all harvested, fine crop; prairie grass fine.

Hodgeman.—Wheat nearly headed; rye kernel beginning to form; barley heading; damage by hail on 7th.

Kearny.—Crops looking well; first alfalfa crop mostly in stack.

Meade.—First crop alfalfa being cut, and is very fine; wheat and barley injured by dry weather; corn, cane and Kaffir-corn doing well; fruit crop prospect very good. Ness.—Local showers; everything needing rain; grass curing up; feed planting about finished.

Norton.—Some local showers in southeast corner; rain badly needed; first crop of alfalfa nearly all in stack in good condition; cherries ripening.

Rawlins.—Dry weather has reduced yield of small grain one-half, if it continues this next week very little wheat will be raised in the county; alfalfa mostly in the stack; grass doing well; grasshoppers bad on corn in some parts.

Sheridan.—Wheat mostly headed and heavy; first crop of alfalfa mostly cut, a heavy crop; considerable damage to fruit and gardens by hail in parts.

Thomas.—Barley and early wheat badly hurt; corn clean and making fair growth; wheat heading; rye in bloom; some damage by hail.

Trego.—First crop of alfalfa being cut, and is he

The Apiary.

Conducted by A. H. Duff, Larned, Kans., to whom all inquiries concerning this department should be addressed.

Notes for the Apiary.

Hiving Swarms. Do not be in too much of a hurry to take down swarms until the bees get well settled in a cluster. They will be much more easily hived, and but few will return to the point of settling. If the swarm is not well settled before removing it, you are liable to take it without the queen. Always when thus hiving swarms, return to the place of settling and get the remainder of the bees, as in nearly every case a few will gather up in a small cluster and the queen may be with them. I have known but a mere handful of bees to thus leave with the queen, leaving the most of the bees which, however, will return to the old hive. We should be on the watch very closely during swarming time, and if possible, be present when the swarm is issuing from the hive, that we may keep a sharp lookout for the queen. Very often the queen can not take wing with the swarm, and will be found crawling about on the ground. In most cases a few bees will find her and gather about her, and then she may be easily found.

Prevent Second Swarms. It is not good policy to let a colony swarm second swarms, for they are generally small, and the colony they leave is weakened down too low. Neither the swarm nor the colony they leave will be of much account the remainder of the season in storing honey, and un-less the season is good they will not store enough honey to winter them over. After the first swarm comes off, remove the queen cells from the hive, and leave them but one from which to supply a queen for their own use. This will check swarming in that colony, and it will be left in condition to store hon-These colonies must closely ten days or two weeks after, to see if the young queen is there and if she has begun laying eggs. The disappearance of one of these queens will leave the colony in a helpless condition, and it must receive prompt attention.

Give the Bees Storage Room. Keep removing the honey from the surplus boxes just as fast as it is completed. Do not allow it to remain until the bees have filled all space, and have no more room. Add supers as the bees need but ordinarily two supers will them. answer, except in exereme strong colonies, where three or more may be used. One super of 24 sections is enough for weak colonies but at this season of year they soon get strong, and in a week's time they will be ready for two supers. The empty supers should be placed next the brood-chamber and the filled one on top, and thus several may be stacked up, but it is best to take off all sections

completed, and fill up with empties, mix ing them up with the partly filled ones. If a colony that has a lot of partly filled sections on it swarms, follow the swarm with the sections, for they will do more work at storing honey in them than in the old hive. The work of re-moving the sections of honey can be done more rapidly by opening the and ers while on the hives, and with a life tle smoke, and a brush, the sections can easily be taken out one by one, and replaced with others. The work earl be done in the time it would take to get the bees all out of the supers and away from the hives.

Using the Extractor. If you want the best and most ripened thick honey do not extract until the combs are sealed over. Extract until the combs are sealed over. Extracting may be done before the combs are sealed, but you are more liable to get unripe honey. If you extract just as the bees begin sealing, you will get a very good quality, but honey should not be taken from the combs before it is thus ready. the combs before it is thus ready to seal, if you wish to get the best qual-ity. The extracting super may hold the same number of frames as the broadchamber, but if the combs are built out pretty thick and crowd into the hive use one less in number and you will get along more smoothly. For uncapping the combs, you need a honey knife made for the purpose, but you can use the long thin blade of an ordinary knife made very sharp and with a smooth, keen edge. With a little practice, one can shave the cappings without getting a great deal of honey with them, as they extend a little above the honey. It is desirable to have straight frames of combs with a smooth surface in order to do nice work at extracting. Very few small bee-keepers have an extractor, but it pays any one with but two or three colonies of bees to get an extractor. With a few colonies, one can greatly increase the number of pounds of honey taken, as the bees do not have to manufacture comb as in comb-honey, and hence a good deal of honey is saved that would otherwise have been used in the production of wax.

Taking Honey from the Brood-Chamber. Although you can get just as good quality of honey from the brood-chamber of the hive as anywhere, yet you should never take honey from it. The honey in the brood-chamber must be left for the bees, except in very rare cases when the frames are so full of honey that the queen has no space to deposit eggs. This sometimes occurs, but very seldom. In addition to this reserve store of honey for the use of the bees, it is wise policy to store away a few more frames of honey to give the bees the following spring, or in the autumn if they need it to winter on. This is by far the most convenient way to feed bees, and about as cheap as any in the long run. The amount of honey con-tained in the hive proper varies greatly, and while some may have 50 pounds, others may have but 10 or 20 pounds, so that we can not always depend upon what we thing the amount ought to be. A strong colony during the honey season or a honey flow, will store large quantities of honey, if there is a place in which to store it, at least filling all the frames in the hive, while a weak colony will not store much and what colony will not store much, and what it does store may be used up in gaining strength after the flow stops; so that one will have honey and the other will not. Do without a drop of honey rather than to rob the bees.

The Duroc-Jersey Swine National Show Program.

EDITOR KANSAS FARMER: -At a recent meeting of the Board of Directors of the National Duroc-Jersey Record Association, in Chicago, the following men were selected to act as judges at the Kansas City show in October:
Jos. Vogel, Benson, Ill.; C. C. Keil,
Ladora, Ia.; J. D. Stevenson, New
Hampton, Mo.; Prof. W. E. Kennedy,
of the Illinois University.
Aside from this business, we have

offered \$100 for the best car-load lot of full bloods or first cross Duroc-Jerseys at the Chicago show next winter, and \$50 for the second, and besides will give an additional \$50 if each or all the other breeds will give the same amount, the whole to make a purse for the best car-load lot of hogs to be sold at auction and tested on the block. We give this last premium, and keep it open until July 15, as we should know by that time if we are to fit up a car-load lot.

We also decided to hold a public sale of Durocs in connection with the Kansas City show. This will be the first thing of the kind the Duroc people have done and we propose to make it a hummer. Anything you can say for us will be greatly appreciated.

ROBT. J. EVANS. Secv.

SCALE IN INCHES. 2 to 3. Less than 1/4. 1/4 to 1. 1 to 2. Over 3. T. trace.

ACTUAL RAINFALL FOR WEEK ENDING JUNE 8, 1901.

and flax shortened by dry weather; corn small; good week, and crops of all kinds now growing rapidly.

Crawford.—Wheat filling well and turning; too dry for corn and oats; timothy beeding.

now growing rapidly.

Crawford.—Wheat filling well and turning; too dry for corn and oats; timothy heading.

Doniphan.—Cool nights preventing growth of corn; two light rains putting the ground in fine condition for cultivation; wheat heads have not filled very well; strawberry crop good since rains.

Elk.—Fine rain, but more needed; much complaint of bugs injuring corn.

Franklin.—Strawberry crop much shortened by dry weather; recent rains helping crops very much.

Greenwood.—Corn ground well cultivated and clean; grass fair; more rain needed.

Jackson.—Rains were light, not enough to do any appreciable good; early planted corn maintaining its own, but at a stand still, later planted yellow and dying; oats very short and heading; wheat shows little improvement; pastures and meadows very short; hay crop will be poor.

Jefferson.—Pastures drying up; oats not half a crop; corn making slow growth; cherries ripe.

Johnson.—Two light rains, helping grass and wheat; corn not much improved.

Leavenworth.—Wheat full crop; oats very poor; corn and potatoes growing slowly; apples and peaches dropping badly; bernes dried up; cherries full crop; stock doing/well; more rain needed.

poor; corn and potatoes growing slowly; apples and peaches dropping badly; bernes dried up; cherries full crop; stock doing well; more rain needed.

Lyon.—The rains and warmer weather greatly improved the crops this week; chinch-bugs flying in large numbers.

Marshall.—Crops doing well; plenty of rain; alfalfa is making a large crop.

Montgomery.—Normal temperature and good rains; fine week for crops; some hall in south part; high winds have done some damage to fruit; wheat harvest begun, will be a large acreage cut next week.

Morris.—Good rains have put all crops in good condition except oats; second crop alfalfa growing finely; plums dropping, other fruit holding well; too dry yet for blackberries; cherries being marketed.

Nemaha.—Crops greatly benefited; wheat in good condition; corn late but growing well; oats short, seem a failure; first crop alfalfa made and was good; hay a good stand and doing well; peaches good crop; apples short; cherries ripe and abundant.

Osage.—Rains have greatly benefitted corn; very little water in pastures, and grass seems dying.

Pottawatomie.—Wheat all good; oats small; corn late and looking well; early potatoes suffered for rain.

Riley.—Corn improving; alfalfa hay crop is in stack.

Shawnee.—Corn suffering; oats drying up;

Shawnee.-Corn suffering; oats drying up;

of 7-8th of great benefit to hard wheat, corn and oats.

Harvey.—Good showers and rains helping to fill out wheat and oat heads; corn improving; a little wheat damaged by hall; wheat is looking well, but will not equal last year's crop.

wheat is looking well, but will not equal last year's crop.

Jewell.—Rains have revived pastures and crops; wheat and oats shortened by late drought; cultivating corn; cherries nearly

drought; cultivating corn; cherries nearly ripe.

Kingman.—May-wheat harvest begun; dry weather hurt wheat; cats short; corn doing well.

Lincoln.—Fine growing week; corn making good growth; much of the wheat is very short, yet it is well headed; alfalfa about all stacked in fine condition.

McPherson.—Crops much improved; wheat nicely headed and looking better; corn thin stand and small but clean.

Marion.—Wheat fine; oats short but much improved; corn small.

Ottawa.—Wheat in good condition except where fly is in it, crop will be much less than last year; rye good; oats not much improved; early cherries about ripe; potatoes fair to good; corn doing better.

Phillips.—Wheat suffering in some localities; pastures drying up; grasshoppers and chinch-bugs numerous.

Pratt.—Fine rain night of 7-8th helping all crops.

Reno.—Fine rains have improved condi-

all crops.

Reno.—Fine rains have improved condition of all crops; hail did much damage in its path; wheat and oats looking well, wheat beginning to turn; corn looks well, is being cultivated and generally is clean; early cherries and new potatoes in market; late strawberries improved by rains.

Rice.—Still some reports of fly hurting wheat; wheat looks fine and is filling nicely; oats short, but heading quite well; corn doing better; May-cherries are ripe; other fruits doing well.

Rush.—Drought has materially shortened wheat yield; corn backward; oats and barley backward, but looking well; some hall on the 7th.

Russell.—Rain was general; wheat and the spring crops were needing it.

Russell.—Rain was general; wheat and the spring crops were needing it.
Saline.—Some damage by hall; wheat in bottom lands lodged by heavy wind and

rain.
Sedgwick.—Oats light crop; corn good color, but backward.
Smith.—Wheat needs rain; corn doing better; Kaffir-corn poor stand in many fields; apple prospects poor; cherries ripen-

ing. Stafford.—Wheat improved; pastures good and stock doing well.

Sumner.—Soft wheat harvest began 7th, hard wheat ripe in a week; hail on 7th.

El Paso, Ill.

In the Dairy.

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

Dried Blood as a Tonic For Young Calves.

PRESS BULLETIN NO. 70, FROM FARM DE-PARTMENT, EXPERIMENT STATION, MANHATTAN, KANS., JUNE 4, 1901.

For two years the Kansas Experiment station has used dried blood in connection with its experiments in feeding calves. In March 1899 one of our cows gave birth to a calf weighing 86 pounds. This calf was allowed to suck several weeks to assist in reducing the inflamation in the dam's udder. On account of poor quality or quantity of milk, the calf did very poorly and to save its life it became necessary to remove him from his dam. With the ordinary treatment accorded to our column he ground to our column he ground. corded to our calves, he grew worse and worse and when 79 days old weighed only 90 pounds, or 4 pounds heavier than at birth. Although no one would have given 10 cents for the calt at this time, an effort was made to at this time, an effort was made to bring him out. He was given castor oil, laudanum, fresh eggs, calf meal, and, as a last resort, dried blood. With the blood, the calf commenced to improve and in a short time was gaining at the rate of nearly 14 pounds per week, and not infrequently as high as 17 to 18 pounds per week. When a year old, he weighed 578 pounds, a pretty good record for a calf that gained only 4 pounds for the first 79 days of its existence. The dried blood consumed The dried blood consumed during parts of three months amounted to 7¼ pounds. At 2 cents per pound the cost was 15 cents.

In October, 1900, a heifer belonging to the Agricultural College dropped her

first calf. The calf was small and sickly and for the first few weeks did very poorly, as is shown by the fact that, on December 1st, it weighed two pounds less than on November 1st. For a few weeks, its life was in a very critical condition, but when induced to eat a little dried blood with its milk it began to improve and has been mak-

ing fair gains ever since.

Dried blood is not only good for a weak calf, but is an excellent remedy for any calf subject to scours. The Kansas Experiment Station has just purchased 20 young calves. Frequently these calves arrive at the Station badly affected with scours; a little dried blood always brings about a cure. Recently a test was made with five calves that happened to be scouring at the same time. With two of these, dried blood was fed after reducing the regu-lar feed of milk. With the other three, the dried blood was fed without changing the supply of milk. In the former case the calves recovered from the scours after two feeds; in the latter after three feeds. With the seventy heads of young calves under experiment at the Kansas Station during the past year there has not been a single case of scours that dried blood has failed to check.

In feeding dried blood, a teaspoonful at a feed is a great plenty. This should be continued until the scours disappear. In case of a weak calf the allowance may be gradually increased to a tablespoonful at a feed. To prevent the dried blood from settling to the bottom of the pail where the can is drinking or the milk and blood may be fed immediately after being thor-oughly mixed. Since dried blood is such a cheap and effective remedy it will pay anyone who raises young calves

by hand to have a little available whenever a calf shows signs of disorders in its digestive tract. It can be obtained from any of the large packers. When ordering state that the blood is When ordering states wanted for feeding purposes.
D. H. O.

Notes from College Dairy.

The early growth of pasture is being mowed to give vigor to the later growth. The pasture was originally sown to orchard grass, Kentucky blue grass, timothy, clover, and English blue grass. None of the timothy can be seen, only a scattering of the red clover plants, and the English blue grass ap, pears only along the sloughs, leaving the pasture almost entirely of the first two named.

Eight of the ten calves fed in the whey experiment of last winter have been loaned to the Veterinary Depart ment for black-leg experiments. The other two will be kept for the dairy. F. E. U.

Pleased With Kansas Dairy Interests.

Mr. F. A. Leighton, editor of the but-ter-making department of the Chicago Daily Produce, has recently taken a trip through Kansas, and has the following encouraging and complimentary words concerning her output of dairy prod-

"The writer has always had the impression that Kansas was not a State where a fine quality of butter is made, but since coming here he has had reason to change his views, for he has seen some very fine butter with just as good flavor, as any made in Iowa. Among flavor, as any made in tons.
those who are turning out excellent
butter are the Belle Springs people, the Continental people—especially that from pasteurized cream—the Great Bend concern, the Heizer, Clafflin, and Logan Township factories. There are others whom the writer has called on who have the same opportunities to make a good grade of butter, but they fail to get the same results that the others do. Undoubtedly there are other factories that are making good butter which the writer will see later on, but when the next fellow tells him no good butter is made in Kansas, he will tell him that he is mistaken. If I wanted some good butter and in large lines, I would take the first train for some of these creameries. These large plants are scrupulously clean, and we have not found a dirty creamery in Kansas. This is more than can be said after a ten days' trip up north among Iowa and Minnesota creameries."

Why Milk May Sour Before Morning. · C. C. CUNNINGHAM.

When milking time comes, the farmer calls Johnny, and sends him after the cows. Johnny whistles for the dog, and has a fine time chasing the cows home.

The farmer comes in after the milk pails, and not finding them, says to his wife, "Wife, where are the milk

pails? "Why, I left one out in the chicken coop, when I fed the chickens this

coop, when I led the chickens this morning, and you must have left the other one by the pig pen when you watered them this morning."

The old man goes to the chicken coop, finds the pail looking pretty clean and the borg didn't happen to clean, and the hogs didn't happen to get into the other, so he thinks it too much trouble to go clear back to the weel and rinse them, and goes out and

does the milking.

He gets one pail full, and sets it up in the barn window, or some other convenient place, finishes milking, sets the other bucket up; and climbs up in the loft and throws down a lot of dusty hay to the cows, does a few other things, while the milk is catching all the hay bacillus, and various other germs that are floating around in the air and absorbing all the as they come in contact with it. Then he takes it in, and strains it through a strainer that answers the purpose, —but does not strain at all—puts the lid on the can, and sets it in a tub of cold water, which it warms up to about the ideal temperature for all the numerous germs to develop the fastest, and then wonders why his milk sours before morning, or it has so bad a taste, if it does happen to keep sweet.

Alfalfa as a Green Feed.

During the summer of 1899 the Kansas Experiment Station soiled 10 head of milch cows. For 74 days these cows received green alfalfa. This feed is especially relished by cows and when good condition for furnishing green feed practically the whole summer. It took 2.97 acres to keep these ten cows on green alfalfa and 1,623 pounds of corn and Kafir-corn meg. During this

time these cows yielded \$85.69 worth of butter fat and skim-milk, figuring the fat at creamery prices, and skimmilk at 15 cents per 100 pounds. The grain cost \$10.65. This leaves \$75.04 to be credited to the green alfalfa., amounting to \$1.95 per ton or \$25.26 per amounting to \$1.95 per ton or \$25.26 per acre. Where pasturage is abundant, it will doubtless not pay to feed green alfalfa, but where pasture land is scarce or the grass became short or dry, green alfalfa furnishes an excellent feed, and will not only keep up the flow of milk for the time being, but will help materially to maintain a but will help materially to maintain a large flow of milk through a longer peroid of lacatation. Pasturing alfalfa will sometimes cause cows to bloat; the Kansas experiment station did not experience a single case of bloat from

experience a single case of bloat from cutting and feeding it green.

On June the 21st, 1900, 21 cows milked by Agricultnral College yielded 389.8 pounds of milk. On July 12, these same cows yielded 390.2 pounds of milk. During this period of a little over three weeks there was a severe drought in the region of Riley County, which caused the pastures to dry up and the flies to be very annoying. During these flies to be very annoying. During these trying days the flow of milk was kept up by feeding green alfalfa. D. H. O.

Bill of Fare for a Kansas Dairy Cow (Continued from last week.) CORN STOVER.-RATION NO. 13.

Since corn is, and in all probability always will be, king in Kansas, the problem of how best to utilize the forage is an important one. Where there is plenty of young stock to "rough" through the winter the problem is a comparatively easy one. Even with milk cows on a full feed of alfalfa or clover it is well to have stover in a rack in the yard from which the cows can eat at will. Where corn cows can eat at will. Where corn stover is the total roughness it will require more grain to meet the cow's need than most any other kind of roughness, except straw. It will also be impossible to supply all the protein needed from grains raised on the farm. The nearest approach will be to feed all the stover the cows will eat and then give 12 to 14 pounds grain daily, composed of 1 part soy-bean meal, 2 parts corn or Kaffir-corn, 2½ parts cottonseed meal, and 7 parts oats. Only ¼ of the grain need be purchased. The acreage required would be as follows: Soy-bean ¼, corn 1-5, oats 1½. No acreage is allowed for stover, as there is usually plenty in the corn field which, if properly cut and cured, can be had with erly cut and cured, can be had with out any extra outlay of land.

RATION NO. 14.

Another good ration with corn stover is 20 pounds of mangles per day, with 10 pounds of grain, composed of 3 parts corn, 3 parts cottonseed meal, and 4 parts bran. This is a reduction of about 3 pounds in the total grain needed, but an increase of about 4 pounds in the amount to be purchased.

RATION NO. 15.

Where it is desired to substitute about $\frac{1}{3}$ of the corn stover for prairie hay, a grain ration of 1 part oats, 2 parts cottonseed meal, 3 parts corn or The area required in this case would be, prairie hay ½ acre, oats 1-5 acre, corn ½ acre, soy-beans 4-5 acre.

Kaffir-corn stover can be substituted

for corn stover whenever desired, as the two feeds possess practically the same feeding value. D. H. O.

Cows and Spring Pasture.

F. E. UHL.

There is considerable discussion concerning the variation in yield and but-ter-fat when cows are first turned on pasture in the spring. Cows which are poorly fed during the winter, given too wide a ration, or having a deficiency of protein, will certainly give an increased flow of milk when first turned on grass; they centage of butter fat in consequence. The College herd, however, which was fed a ration more narrow than the standard, shows little variation in either flow or per cent of fat. Let us note the record for the last of April and the first of May.

The herd numbers 28 scrub cows, but as eight of them were dry or going dry by the first of May, they were counted out, and only 20 of them considered in this comparison. These twenty gave a daily yield of 448 pounds of milk during the last of April. On the first of May they were turned to pasture well started; during the first week they cows received green alfalfa. This feed is especially relished by cows and when properly handled a field can be kept in properly handled a field can be kept in the second week, 447:9 pounds daily. The highest daily yield, 475 pounds, was

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cows were taken to the pasture about a. m. after filling themselves with alfalfa hay. Later they were put on grass from 7 to 8 a. m. and always brought in about 3 p. m. They were fed all the alfalfa hay they would eat at night either in the stable or the rack outside. The grain ration consisted of 5 parts, by weight, of corn meal, 3 parts bran, and 2 parts oat hulls. The ration was 139 pounds daily the first week, and 82.5 pounds the second week. The aim is to feed no more grain than the cows will pay for. For instance, eight cows getting four pounds a day were given five pounds for several days; five of them failing to give sufficient increase in flow were reduced again to a ration of four pounds.

As to the test variation; the samples for the testing were taken for eight milkings, the last being taken the morn-ing of the date named. Three different sets of samples were taken, ending on April 30, May 6 and 15. The average test for the samples ending April 30 was 3.88 per cent; May 6, 3.89 per cent; and May 15, 3.99 per cent. By May 30, we find the pasture shortening, the yield decreasing, and the test raised to 4.01 per cent. Six of the cows gave a lower test May 6 than on April 30, three of these regained the test of April 30 by May 15; the other three gave a still lower test by May 15. Five gave the same test May 6 as on April 30, 9 gave a higher test on May 6 than on April 30, and 5 of these falling back to, or below, the test of April 30 by May One gave the same test for the

three periods. Thus we see that great variations do not necessarily follow the turning to grass, especially when cows have been well fed and cared for, and whose winter quarters do not take them beyond a lot enclosed with a high board fence, where, although they may "smell the grass," they can not see it.

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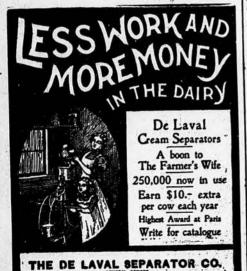
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The Poultry Hard.

Eggs and Their Uses as Food. FARMERS' BULLETIN NO. 128, U. S. DEPART MENT OF AGRICULTURE.

(Continued from May 30.) TESTED WITH A HEALTHY MAN.

A German investigator, Rubner, some years ago tested the digestibility of hard-boiled eggs with a healthy man. No other food was eaten with the eggs. It was found that 95 per cent of the total dry matter and 97 per cent of the protein were digested. The fat was also very thoroughly asimilated. The percentage of total dry matter and protein digested was about the same as Pabara found in similar experiments in Rubner found in similar experiments in which meat only was eaten, while the percentage of fat digested was larger. Discussing these tests, Rubner says in

"From the fact that eggs are as completely digested as meat, it does not follow that they are digested in the same time, or that hard-boiled eggs do not produce more disturbance in the digestive organs. It is highly probable that there is no difference in the thoroughness of digestion of head belief ness of digestion of hard-boiled and softboiled eggs."

Jorissenne, discussing the digestibility of eggs with reference to some re-cent European work on the subject, states that he regards the yolk of raw, states that he regards the yolk of raw, soft-boiled, and hard-boiled eggs as equally digestible. The white of soft-boiled eggs being semiliquid, offers little more resistance to the digestive juices than raw white. The white of a hard-boiled egg is not generally very thoroughly masticated. Unless finely divided it offers more registance to the divided, it offers more resistance to the digestive juices than the fluid or semi-fluid white, and undigested particles may remain in the digestive tract many days and decompose. From this deduction it is obvious that thorough mastication is a matter of importance. Provided mastication is thorough, marked differences in the completeness of digestion of the three sorts of eggs, in the opinion of the writer cited, will not be found.

Perhaps the most extended study of the digestibility of eggs was carried on recently at St. Petersburg, by Tikhvinski. Two experiments, each divided into two periods of seven days, were made with a healthy man. In the first period of the first experiment, the diet consisted of hard-boiled eggs, bread, and meat; in the second, of soft-boiled eggs with bread and meat. The second experiment was made under similar conditions, except that the soft-boiled eggs were used in the first period and the hard-boiled in the second. The eggs furnished about one-fifth of the total protein and two-thirds of the total fat of the diet. Considering the average results of the whole investigation or those of each experiment, the rations containing the eggs cooked in the two ways proved equally digestible, 90 to 91 per cent of the protein and 95 per cent of the fat consumed being retained in the body. As the only factor in the experiments which varied was the time of cooking the eggs, the deduction seems warranted that the hard and soft boiled were equally digestible.

From experimental evidence it seems

fair to conclude that eggs are quite thoroughly digested and that the length of time of cooking has less effect upon this factor than upon the time required for digestion. In a healthy man the latter consideration is probably not a matter of much importance. In the diet of sick persons and invalids it may be more important. Diet in such cases, however is a matter for the attention of skilled physicians.

In some of the experiments referred to above the eggs were used alone; in others, as a part of a more or less sim-ple mixed diet. The effect of one food upon the digestibility of another is a matter concerning which little is definitely known. It is possible that when two foods are eaten together, the di-gestibility of either or both is (1) unchanged, (2) increased, or (3) dimin-

EFFECT OF DRINKS UPON DIGESTIBILITY. Apparently no experiments have been made in which the problem was studied with special reference to eggs com bined with other foods. However, artificial digestion experiments were made by Fraser on the effect of beverages on the digestibility of a number of foods, including raw and cooked egg albumen which led to the deduction that tea, coffee, and cocoa retarded somewhat the digestibility of the nitrogenous constituents of eggs, although the effect was less marked with coffee than with the other beverages. Water did not have this effect.

Though interesting in themselves, too

wide application should not be made of the results of such tests, for even if the beverages retarded digestibility somewhat, it does not necessarily follow that this effect was harmful, or that the thoroughness of digestion was altered.

THE PLACE OF EGGS IN THE DIET.

Eggs are used in nearly every household in some form or another in varying amounts. From the results of the numerous dietary studies, made under the auspices of this department and by the agricultural experiment stations, it has been calculated that on an average eggs furnish 3 per cent of the total food, 5.9 per cent of the total protein, and 4.3 per cent of the total fat used per man per day. Cheese was found to furnish 0.4 per cent of the total food, 1.6 per cent of the total protein, and 1.6 per cent of the total fat, while the milk and cream together furnish 19.9 per cent of the total food, 10.5 per cent of the total protein, and 10.7 per cent of the total fat. Milk and cream together furnish some carbohydrates, while eggs and cheese furnish no appreciable amount of this group of nutrients. Considering some of the common meats, beef and veal together were found to furnish 10.3 per cent of the total food, 24.6 per cent of the total protein, and 19.5 per cent of the total fat. The corresponding values for mutton and lamb together were 1.4, 3.3, and 3.8 per cent.

It will be seen that, judged by available statistics, eggs compared favorably with the more common animal foods, as regards both the total food material and the total protein and fat furnished by them in the average daily dietary. In other words, investigations show that the high food value of eggs is appreciated and that they constitute one of the very important articles of diet in the American household.

AMOUNT OF NUTRIRIVE CONSTITUENTS.

The amount of nutritive material which a given amount of eggs will furnish at any stated price per dozen may be readily calculated. When eggs are 15 cents per dozen, 10 cents expended for this food will furnish 1 pound total food material, containing 0.13 pound protein and 0.09 pound fat, the whole baving a fuel value of 635 calories. At 25 cents per dozen, 10 cents worth of eggs will furnish 0.60 pound total food material, supplying 0.08 pound of protein, 0.05 pound of fat, and furnish 275 calories. The cents expended for beef calories. Ten cents expended for beef at 8 cents per pound will furnish 1.25 pounds total food material, containing 0.24 pound protein, 0.16 pound fat, and 1,120 calories. Expended for beef sirloin at 20 cents per pound it will furnish 0.5 pound total food matter, containing 0.08 pound protein, 0.09 pound fat, 1.06 pounds carbohydrates, and 2,430 calories.

In many of the dietary studies made in the United States, data were recorded of the cost of different foods and the relative amount of nturitive material contributed by each in proportion to the total cost. Compared with other foods at the usual prices, eggs at 12 cents per dozen were found to be a cheap source of nutrients; at 16 cents per dozen, they were fairly expensive, and at 25 cents per dozen and over, they were very expensive. This point needs some further discussion, since the value of eggs can not fairly be estimated solely on the basis of the amount of nutrients furnished. Eggs are also valuable for given ing variety to the diet and for furnishing a light, easily digested, nitrogenous food, especially suitable for breakfast or other light meal, an important item for those of sedentary habits.

ECONOMIZING.

Many families of moderate means make a practice of buying fresh meat for but one meal a day—i. e., dinner, using for breakfast either bacon, dried beef, codfish, or left-over meats, etc., and for lunch or supper, bread and butremaining from the other two meals. with perhaps the addition of cake and fresh or preserved fruit. It is the thrifty housekeeper, who uses all her material as economically as possible in some such way, who is likely to fall into the error of excluding eggs at higher prices almost entirely from her food supply. If her economy was directed principally to restricting the use of eggs in the making of rich dessert dishes, cake, and pastry, one might not only refrain from criticising but welcome the circumstance which necessitated the making of simple and therefore more wholesome desserts. But usually the housekeeper economizes by the more obvious method of omitting to serve them as a meat substitute.

The statement so frequently made by housekeepers that eggs at 25 cents per dozen are cheaper than meat is true in one sense. Not, of course, with refer-



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obtained for the money expended, but because a smaller amount of money is needed to furnish the meal. That is to say, whereas at least 11/4 pounds of beefsteak, costing 25 cents, at 20 cents per pound, would be necessary to serve five adults; in many families five eggs costing 10 cents, at 25 cents per dozen, would serve the same number and probably satisfy them equally well. If the appetites of the family are such as to demand two eggs per person, doubling the cost, it is still 20 per cent less than the steak. Many persons eat more han two eggs at a meal, but the average number per person it is believed does not generally exceed two in most families. A hotel chef is authority for the statement that at least one-half the orders he receives are for one egg. Frequently when omelets, souffles, creamed eggs, and other similar dishes, are served in place of fried, poached, or boiled eggs or meat, less than one egg per person is used.

(To be continued.)

Young Chicks in Rainy Weather.

It has been a strong point with me to try and save every little chick that hatches out good and strong, as it seems to make quite a difference when you come to find your net proceeds at the end of the year. A chick that lives for only ten days or two weeks, never "cuts any figure" in one's bank account. Of course, there are a few chicks, no matter who owns them, that stagger into this world from sheer force of circumstances and just live long enough to gasp out a goodbye "yeep." We take this all as a matter of course, but the general flock that just literally bounce out of their shells are here for a purpose, and will demonstrate the fact in a very creditable manner if only allowed the chance. We know that in April, at all events, and sometimes in May, there are spells of cold, dark, rainy weather, but we can be prepared for all this. On every farm everything necessary is to be found for keeping our chicks in the best of shape if we will only put it where they can use it. A wash house, a building out by itself, is on most farms, and is never used in rainy weather for laundry work. Ours is very like most every other one in the region, I suppose, and is provided with a great boiler and plenty of fuel. And when we see infallible signs of a wet spell, we carry our coops of chicks with their hen mothers into this room, put a pailful of water in the boiler, and start a little fire. Then we bring a bushel basket of the finest hayseed from the barn floor or horse mangers and scatter it over the floor. In this any feed can be scattered, where they will scratch and pick the live-long day, dry warm and nappy. They really and drink and grow just as well as ever they could out in the sunshine in warmer weather, and "when the mists have rolled away" and you turn your little flocks out into the bright sunlight and green grass they will run and fly just to show you how they have grown, and to tell you now well it paid to keep them comfortable. While they are running after spiders and beetles you will very willingly sweep your wash house and be only too glad to let them have possession again under similar circumstances. If you never tried it you don't know how well it works. One thing that needs to be especially remembered is that little chickens or turkeys really must have their tender little feet kept dry and warm. Exercise is vitally necessary to their wellbeing, so is shelter, and last, but not least, don't forget the chaff or hay

seed, and have it where they can work

in this way you will have no loss of young chicks to speak of.

MRS. J. F. KNUDESON.

Hamilton County, Iowa.

Give Room for the Turkeys.

The turkey is not yet sufficiently removed from its wild state to bear the confinement given hens, even during the cold weather, and the person who would be succeeful with them must work on the plan of wide range and little, or no shelter. Mr. Chas. Mc-Clave, one of the most successful and widely known resulting specific that the successful successful known resulting specific that the successful successfu widely known poultry raisers in this country, has a portion of his farm, about 30 acres of woodland, given up entirely to turkeys. This enclousre is in grass, the greater part is shaded, and the turkeys roam over it at will. During the winter they are fed on the range, unless the snow is too deep. There is no protection whatever provided, except an enclosure of about 2 acres, in which roosts are fixed high above the ground. This method suits the turkeys very well, and is much less expensive than if the attempt was made to handle them in the same manner that hens are handled. In short, natural environments are the prerequisites to successful turkey culture.-American Poultry-



POULTRY BREEDERS' DIRECTORY.

FOL SALE—Choice Single Comb White Leghorn hens, one year old. \$4 dozen. Ella F. Ney, Bonner Spsings, Kans.

HIGH-SCORING, PRIZE-WINNING, Cornish Indian Games, W. P. Rocks, Black Langshans. Eggs \$1 per 13. Mrs. J. C. Strong, Moran, Kans.

HENS
Setting 6 days instead of 21, and how to make \$500 yearly with 12 hens. 45 Medals, etc., for Wonderful Discovery in horse manure heat. Particusers of the property of the

GEM POULTRY FARM—C. W. Peckham, Proprietor, Haven, Kans. Buff Plymouth Rocks, 2 flocks, Eggs from best flock \$2 per 15. A few choice Burdick cockerels for sale. Pea Comb W. Plymouth Rocks, 2 flocks. Eggs from best flock \$2 per 15. A few choice cockerels for sale. M. B. Turkeys, 2 grand flocks. Eggs \$2 per 11. Young toms for sale.



EGGS Hatching.

From Pure-Bred, High-Scoring, Prize-Winning,

WHITE AND PLYMOUTH ROCKS
13 for \$1; \$0 for \$2; 50 for \$3; \$5 per 100. Recipe for making and using Liquid Lice Killer, 25 cents. Write for descriptive circular.

T. E. LEFTWICH, Larned, Kansas.

EGGS AND STOCK.

Barred Plymouth Rocks, White Plymouth Rocks, Partridge Cochins, Buff Cochins, Light Brahmas, Black Langshans, Silver Wyandottes, White Wyandottes, 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.

MARKET REPORTS.

MAKAL		CDI CALLO	•	
Kansas City, J 5,003, calves, 591. to strong. Repr	une	10.—Cattle—	Rec	eipts,
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to strong. Repl	eser	Lative sales	•	
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NATI	VE S	TOCKERS.	927	4 95

27. 638 4.05 | 1. 880 4.00 2 1120 3.65 | 2. 1020 3.65 2 620 3.60 | 17. 409 3.50 1 580 3.25 | 1 580 3.00 Hogs-Receipts, 8,053. The market was 2½ to 5 cents higher. Representative sales:

Price \$5.95 5.85 5.771/4 5.75 5.00 4.85
 sales:
 No.Av.
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 Price No.Av.
 Price No.Av.
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 66.267
 \$5.95

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 6.228
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 83.208
 5.77½
 228.191
 5.77½
 3.196
 5.77½

 79.185
 5.77½
 45.180
 5.75
 66.219
 5.75

 44.92
 5.20
 1.460
 5.25
 1.120
 5.00

 1.160
 5.00
 1.180
 5.00
 5.104
 4.85

 Sheep—Receipts, 4,838.
 The market was

 steady to 10 cents lower.
 Representative

Chicago Live Stock

Chicago, June 10.—Cattle—Receipts, 22,-. Good to prime steers, \$5.50@6.15; stock-ers and feeders, \$3.00@4.90; Texas steers,

Hogs-Receipts, 37,000. Mixed and butchers, \$5.75@6.05; bulk of sales, \$5.90@

Sheep—Receipts, 20,000. Good to choice wethers, \$3.90@4.25; western lambs, \$5.00@

St. Louis Live Stock.

St. Louis, June 10.—Cattle—Receipts, 4,-300. Native beef steers, \$4.50@6.00; stockers and feeders, \$2.75@4.70; Texas fed steers, \$4.00@5.20.

steers, \$4.00\(\pi_5.20\).

Hogs—Receipts, 4,500. Pigs and lights, \$5.70\(\pi_5.85\); butchers, \$5.85\(\pi_6.07\\pi_6\).

Sheep—Receipts, 1,500. Native muttons, \$3.25\(\pi_4.50\); lambs, \$4.00\(\pi_5.60\).

Omaha Live Stock.

Omaha Live Stock.

Omaha, June 10.—Cattle—Recelpts, 1,400. Native beef steers, \$4.50@5.80; western
steers, \$4.00@4.85; Texas steers, \$3.50@4.60;
stockers and feeders, \$3.25@5.00.
Hogs—Recelpts, 3,900. Heavy, \$5.85@5.90;
bulk of sales, \$5.82½@5.85.
Sheep—Recelpts, 1,900. Common and
stock sheep, \$3.00@3.75; lambs, \$4.95@5.10.

Kansas City Grain.

Kansas City, June 10.-Wheat-Sales by

Kansas City, June 10.—Wheat—Sales by sample on track:

Hard—No. 2, 69@69½c; No. 3, 69c.

Soft—No. 2, 70@71c; No. 3, 68@69c.

Mixed Corn—No. 2, 40@40¼c; No. 3, 40c.

White Corn—No. 2, 41½c; No. 3, 40½c.

Mixed Oats—No. 2, 29c; No. 3, 28c.

White Oats—No. 2, 29½c; No. 3, 28¼c.

Rye—No. 2, nominally 55c.

Prairte Hay—\$5.50@10.00; timothy, \$5.00@

12.00; alfalfa, \$6.00@10.00; clover, \$6.00@10.00;

straw \$3.00@5.50.

straw, \$3.00@5.50.

St. Louis Cash Grain.

St. Louis, June 10.-Wheat cash, elevator, 704c; track, 734@74c; No. 2 hard, 72@73c. Corn—No. 2 cash, 414c; track, 424@424c. Oats—No. 2 cash, 284c; track, 28%@29%c; No. 2 white, 31c.

Chicago Cash Grain.

Chicago Cash Grain.

Chicago, June 10.—Wheat—No. 2 red, 74@
75c; No. 3, 70@73c; No. 2 hard winter,
71½@72c; No. 3, 70@71½c; No. 1 northern
spring, 74@75c; No. 2, 72@75c; No. 3, 67½@
73c. Corn—No. 2, 43@43½c; No. 3, 28@28¾c.
Cotts—No. 2, 28½@28½c; No. 3, 28@28¾c.
Futures: Wheat: June, 72½c; July,
72¾c; September, 69½c. Corn—June, 42½c;
July, 43%@43¾c; September, 44%c. Oats—
June, 27½c; July, 28c; September, 26%@
26%c.

Kansas City Produce.

Kansas Ciyt, June 10.-Eggs-Fresh, 90

Butter—Creamery, extra fancy separator, 16½c; firsts, 14½c; dairy, fancy, 14c; packing stock, 11½c; cheese, northern full cream, 11c; Missouri and Kansas full

try—Hens, live, 6½c; roosters, 15c broilers, 16c per lb; ducks. each: broilers.

spring, 10e; turkey hens, 7c; young toms, 5c; old toms, 4c; pigeons, \$1.10 doz. Choice scalded dressed poultry 1c above these

prices.
Potatoes—New, \$1.10@1.20 bushel, sacked;
northern, 75@85c.
Fruit—Strawberries, \$1.25@2.00 per crate;
blackberries, \$2.00@2.50 per crate; apples,
fancy, \$6.00@8. per barrel; gooseberries,
\$1.00@1.25 per crate; cherries, \$1.00@1.50 per

vegetables—Tomatoes, Florida, \$3.50 per six-basket crate; navy beans, \$2.25@2.30 bushel. Cabbage, \$2.00@2.75 per cwt. Onions, \$1.25 per bu.; cucumbers, \$1.00@1.50 per bushel crate.

Special Mant Column.

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

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

CATTLE.

Five registered Shorthorn cows, 3 calves, 2 yearing heifers, 2-year-old bull, and 10-months-old bull. Lot for sale very cheap. W.K. Morse, Benedict, Kans.

FOR SALE — Fourteen head registered Shorthorn cattle, 12 cows and helfers, two bulls. E. S. Arnold, Topeka, Kans., Route 5.

FOR SALE—Fifteen young Hereford bulls, from 6 to 16 months old, equally as good as the best in the land. All registered. Address me at Hiawatha, Kans. O. F. Nelson.

FOR SALE—Three registered Shorthorn bulls; solid reds, 14 to 22 months old. F. H. Foster, Mitchell. Kas

FOR SALE—A few Shorthorn bulls ready for service. A. C. Rait, Junction City, Kans.

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

HORSES AND MULES.

FOR SALE—Two hundred horses, all ages, draft stock, good bone and size. Address J. A. Scott, Deer Trail, Colo.

LEAVENWORTH COUNTY JACK FARM.—Seven nammoth jacks for sale. O. J. Corson, Potter, Kans.

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

FARMS AND RANCHES.

FREE A book of statistics, information, and 200 Winders Realty Co., Ottawa, Kans. Write G. E.

C. W. MILLER, Hays City, Kans., has just the good, cheap, farm or ranch that will please you. Write him at once for prices.

TO TRADE—Eighty acres of land, here, dark loam, level, title perfect, clear, for registered Shorthorn bull that suits me. D. H. Browne, Lakin, Kearny County,

FOR SALE OR TRADE—160-acre farm—100 acres in cultivation; 6-room house, outbuildings, 3 miles from Florence, Kans., first-class spring water. Price \$16 per acre. For full particulars, write Jno. Fox, Jr., New Cambria, Kans.

MISCELLANEOUS.

WANTED—A first-class engineer to run threshing machine engine; good wages; references required. H. W. Cox, Pievna, Kans.

FOR SALE—An I. b. plow and harrow for \$7.50. C. D. Skinner, 6th and Quincy Sts., Topeka, Kans.

WANTED—A good housekeeper for family of four, and two or three hands. Strictly moral character required; references exchanged; \$4 per week. Address Box 106, Las Animas, Colo.

FOR SALE CHEAP—'Cocker Spaniel Pups. W. H. Richards, V. S., Emporia, Kans.

WANTED—Man and wife to work on stock farm, that have had experience in farming and taking care of stock. Wife to cook for 3 to 5 men and take care of house. Call on or address S. M. Knox, La Harpe, Kans.

FARM HAND WANTED—On dairy farm. with reference. Box 166, Clifton, Kans.

FOR SALE—Six pure bred Lewelling and Irish Set-ter pups; also a fine Lewelling bitch, 2 years old, well broke on quail. Thomas Brown, Route No. 1, Clifton, Kans.

CATALPA POSTS FOR SALE—Well seasoned, light weight posts from trees 16 years old, butt cut, full seven feet long; 2,500 fill one car. Price 6 cents each f. o. b. Wilsey, Morris Co., Kans. Address Geo. W. Tincher, Topeka, Kans.

SCOTCH COLLIE PUPPIES—Of pure breeding.
Will be sold cheap if ordered at once. Write now to
O. A. Rhoads, Columbus, Kans.

WOOL WANTED—We want, and will pay the highest market price in cash for 500,000 pounds of wool. When you write for prices send us a sample of your wool by mail to Oakland, Kans. Be sure and get or prices before you sell. Topeka Woolen Mill Co.

EARLY YELLOW SOY BEANS—For sale at \$1.65 per bushel, sacked on track at Vera, Kans. H. H. Clothier.

FOR SALE—Feed mills and scales. We have 2 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, Kans.

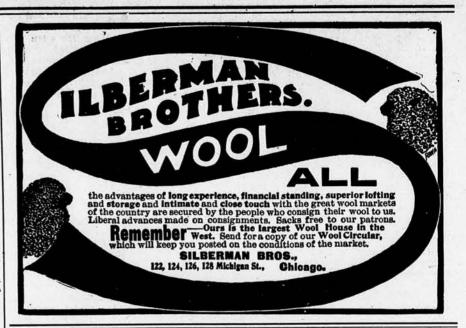
BINDER TWINE FARMERS wanted as agents. Stimson & Co., Kansas City, Mo.

FOR SALE—Registered Scotch Collie and Great Dane pups. Prices \$5 to Burton & Burton, Topeka, Kans.

He's Broke

AND WILL SELL 40 ACRES in Sec. 28, Tp. 28, range 18, Texas county, Mo.; 7 miles to Hutton Valley; a nice timbered 40; spring; on road; 30 acres tillable. Segistered Stock, DUROC-JERSEYS, contains 575 takes 1t; only 910 down; balance, 45 per month. LOTT, the Land Man, 900 N. Y. Life, Kansas City, Mo.

N. B. SAWYER, - Cherryvale, Kansas.



rade-Marks

"BLACKLEGINE."

"Pasteur Vaccine"

Nearly 2,000,000 successfully treated in U. S. and Canada during the last 5 years. Cheap, safe and easy to use. Pamphlet with full particulars, official endorsements and testimonials sent FREE on application.

Pasteur Vaccine Co., Chloage. Branch Office: 622 Whitney Building, Kansas City, Mo

A Sure Preventive of Blackleg

Is Parke, Davis & Company's Blackleg Vaccine Improved. Ready for Immediate Use. No Expensive Outfit Needed.

All you have to do is to put the Vaccine in your syringe, add boiled water according to directions, and inject into your cattle. It will positively PRO-TECT your cattle from the dread disease, Blackles, the same as vaccination prevents Smallpox in the human family. Specify Parke, Davis & Co.'s Blackles Vaccine Improved, and get the kind that is sure to be reliable. EVERY LOT IS TESTED ON CATTLE BEFORE IT LEAVES OUR LABORATORIES. Write for Literature and Full Information, Free on Request.

FOR SALE BY ALL DRUGGISTS.

PARKE, DAVIS & CO., Detroit, Michigan.

BRANCHES: New York City, Kansas City, Baltimore, New Orleans, Walkerville, Ont., Montreal, Que., and London, England.

For Week Ending May 30.

Lyon County-H. E. Peach, Clerk. MARE—Taken up by G. E. Gorman, in Agnes Tp., (P. O. Allen), one black mare, 4 years old, weight 800 pounds, scars on both shoulders. Right hind foot white.

Marshall County—James Montgomery, Clerk. MARE—Taken up by Ed Philipi, in Balderson Tp. on May 11, 1901, one sorrel mare pony, with four white feet, weight about 900 pounds, branded with the figures 21, small white spot on right flank, white strip in forehead, sweenied in both shoulders, value \$10. Brand on left hip.

For Week Ending June 6.

Cherokee County-C. W. Swinney, Clerk. HORSE—Taken up by D. McKenzle, in Springvalley Tp., on May 13, 1901, one brown horse, 10 years old, sheared mane, tall bobbed, shod all round, right hind foot white.

MARE—Taken up by James Murphy, in Lyon Tp. on May 15, 1901, one sorrel mare, Mexican or Texas, shod; valued at \$20.00.

HORSE—Taken up by H. T. Walker, in Lyon Tp., on May 10, 1901, one gray horse, collar marks, shod; val-ued at \$20.00. HORSE—Taken up by M. B. Pruett, in Mineral Tp. on April 25, 1901, one bay horse, 10 years old, 14 hands nigh, branded "J" on left hip and shoulder; valued as

Cowley County-Geo. W. Sloan, Clerk. STEER—Taken up by S. I. Peering, in Silverdale Tp. (P. O. Townsend), on March 25, 1901, ond 2-year-old, red and roan steer; valued at \$20.00.

Reno County-Wm. Newlin, Clerk. HORSES—Taken up by Alex Shultz, in Reno Tp., (P. O. Hutchinson), May 24, 1901, one bay gelding, 4 years old, (brand) 4 bars crossed, valued at \$30; one sorrel gelding, 4 years old, (brand) bar L, valued at \$20. Osborne County-W. H. Mize, Clerk.

MARE—Taken up by M. Lochard, in Hancock Tp., (P. O. Osborne), one bay mare, about 9 years old, weight about 1200 pounds, with a stripe in face, valued at \$75.

Nemaha County-A. G. Sanborn, Clerk MARE—Taken up by Georgia Clelland, in Harrison Tp., (P.O. Goffs), May 14, 1901, one red roan pony mare, 9 years old, tt on left hip, valued at \$10.

Marshall County-James Montgomery, Clerk. marshall county—sames mongomery, clerk.

HEIFER—Taken up by L. W. Chesley, in Vermillion
Tp., (P. O. Frankfort), May 9, 1901, one three year old
heifer, hole in right ear, left ear croped, white on top
of shoulders and belly, switch end of tail white also
hind legs, body red, dehorned, but horn on left side
shows stub, valued at \$15.

For Week Ending June 13.

Cherokee County—S. W. Swinney, Clerk.
MARES—Taken up by John Paxon, in Spring Valley
Tp., May 27, 1901, one black mare, 9 years old, 14½
hands high, blind in left eye, one light bay mare, 3
years old, 13½ hands, one sorrel mare, 3 years old, 14
hands high, blaze face.

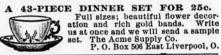
The Stray List. Only \$50 Round trip California

That's the first-class rate, open to everybody, from Chicago to San Francisco, or \$47.50 round trip from St. Louis, July 6 to 13. Tickets good via Los Angeles and

for return until August 31. There's only one line under one management all the way from Chicago to California. Only one line for both Grand Canyon of Arizona and Yosemite. Only one line to California with Harvey meal service.

Santa Fe

Address Gen. Pass. Office, A. T. & S. F. R'y., Chicago.



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FREE TO YOU In order to introduce in every neighborho THE BEST CREAM SEPARATOR ever manufactured we make you this liberal offer, asking you to show it to owners of cows living in your vicinity. Send today your name and the name of the nearest freight office. Write at once to

ECONOMY MFG. CO., 174 W. 7th, Kansas City, Mo. When writing to our advertisers please mention Kansas Farmer.

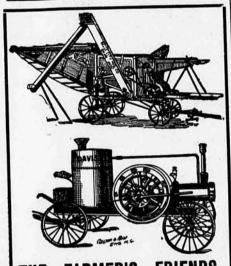
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OF TOPEKA, KANSAS INSURES GROWING CROPS AGAINST LOSS OR DAMAGE ...BY HAIL...

This Association has complied in every particular with the new and stringent laws passed by the last legislature governing hall insurance, and furnished the State of Kansas with a \$50,000 bond, and is now fully authorized by the Superintendent of Insurance to do business in Kansas.

This Association offers you the protection you want at moderate cost. If our agent has not called on you drop us a line and he will do so. Address

Columbian Bldg. THE FARMERS' MUTUAL HAIL ASSOCIATION, Topeka, Kans.



FARMER'S

A COMPLETE THRESHING OUTFIT Small in Size, Small in Cost, Large Capacity

A Portable Gasoline Engine for Any Work—Any Time—Anywhere,

Write for Catalogue of our Machinery Department.

John Deere Plow Co., KANSAS

Grindstones.

Direct from maker to user. 75-lb. stone, diameter 20 inches, \$2.80. 100-lb. stone, diameter 24 inches, \$3.80. Either size stone mounted, \$1.25 extra. The prices include cost of delivery at nearest railroad station. Write for circular. P. L. COLE, Lock Box 381, Marietta, Ohio.



CREAM SEPARATOR.

Pays for itself in a few days. Separates in 40 minutes automatically and gets all the cream. Only sets after the and flasts forever. AGENTS, WANTED. Big payevery farmer buys. Where we have no agent we when lend a Separator at agents' prices, to introduce it. Write for catalogue, prices and the prices of the p

logue, prices, etc., to
ECONOMY SUPPLY CO.,
562 Main St., Kansas City, Mo.



THE SMITH CREAM SEPARATOR.

The only separator on the market that does not MIX the milk and water, and sold under a posttive guarantee. More Cream, Better Butter, Milk fine, and no labor at all. Get a SMITH. Agents wanted. Mention Kansas Farmer.

Smith's Cream Separator Co. 113 West Locust-St., DesMoines, Ia.



SEPARATOR FREE
This is a genuine offer made to introduce the Peoples Cream Separator in every neighborhood. It is the best and simplest in the world. We ask that you show it to your neighbors who have cows. Send your name and the name of the nearest freight office. Address

PEOPLES SUPPLY CO., KANSAS CITY, MO.

CENTROPOLIS HOTEL.

KANSAS CITY, MO.

KUPER, CAMPBELL, MEYER, -PROPRIETORS.

HEADQUARTERS KANSAS STOCKMEN

The Centropolis has been remodeled entire and refurnished complete. American and European cars in front of Union Depot direct to hotel.



Don't fail to take advantage of our "Blocks of Two" offer.



YOU CAN'T GO WRONG

if you take the advice of over 500,000 stockmen and farmers and buy PAGE Fence. Try it. PAGE WOVEN WIRE FENCE CO., ADBIAN, MICH-

YOU CERTAINLY WILL THE ADVANCE FENCE is sold direct from the factory to the farmer at wholesale prices. You get the best price. Entirely interwoven No locase ends. Many heights. Write for tree circulars and special prices. ADVANCE FENCE CO., 180 Old St., Peoria, III.



BULL-STRONG!

....PIG-TIGHT.... An illinois farmer said that after harvest he had fully 200 bushels of loose oats on the ground that he could not secure any benefit from, because the fence around the field would not turn hogs. Figure the loss for yourself, He also said, all this would have been saved if he had used the Kitselman Woven Wire Colled Spring Fence, and the value would have gone a long ways towards paying cost of the fence. With the Duplex Machine any farmer can make it himself at the actual cost of the wire. Catalogue free for the asking.





FEED MILL? We have prices that CAN NOT BE EQUALLED. Write for further information, circulars, etc.

CURRIE WINDMILL CO., Topeka, Kans.



KIRKWOOD FOR 1900

STEEL WIND MILLS, STEEL TOWERS, PUMPS, and CYLINDERS, TANKS, and FITTINGS OF ALL KINDS

Kirkwood Wind Engine Co Arkansas City, Kans.

DRILLING **∠** Machines

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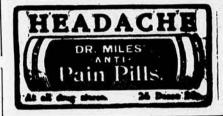
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