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ESTABLISHED IN 1863
\$1.00 A YEAR

KANSAS FARMER.

Established in 1863.

Published every Thursday by the
KANSAS FARMER CO., - - TOPEKA, KANSAS

E. B. COWGILL.....President
J. B. MCAPHER.....Vice President
D. C. NELLIS.....Secretary and Treasurer

SUBSCRIPTION PRICE: \$1.00 A YEAR

E. B. COWGILL.....Editor
I. D. GRAHAM.....Associate Editor
H. A. HEATH.....Advertising Manager

Entered at the Topeka, Kansas, postoffice as second-class mail matter.

ADVERTISING RATES.

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

Special reading notices, 25 cents per line.

Business cards or miscellaneous advertisements will be received from reliable advertisers at the rate of \$5.00 per agate line for one year.

Annual cards in the Breeders' Directory, consisting of four lines or less, for \$16.00 per year, including a copy of the Kansas Farmer free.

Electros must have metal base.

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

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

All advertising intended for the current week should reach this office not later than Monday.

Every advertiser will receive a copy of the paper free, during the publication of the advertisement.

Address all orders:

KANSAS FARMER CO.,
116 West Sixth Ave., Topeka, Kans.

The Postoffice department has given notice that the contracts in effect July 1, 1902, for the performance of mail service on the star routes in certain States and Territories including Kansas, Nebraska, and Oklahoma provide that in addition to carrying the mails to the various post offices, the carrier will be required to deliver mail into all boxes and hang small bags or satchels containing mail on cranes or posts that may be erected along the line of the route, under the regulations of the Department. Those interested can learn these regulations from the postmaster.

Already work is beginning toward another wheat crop, and it is always desirable to know by what means and methods those most experienced and successful have attained their best results. This is told in Secretary Curn's March 1902 quarterly report entitled "Kansas Wheat-Growing", which is a mine of useful, practical information upon the subject nowhere else available in such convenient form. Any Kansas wheat-grower who has not already availed himself of this report should write to the State Board of Agriculture, Topeka, and ask for a copy before the supply is exhausted.

Three years ago the top price for beef at Kansas City was \$5.35. The advance of \$3 is more than offset by the advance in corn from 32 cents to 33 cents three years ago to 65 cents to 66 cents at present. If inquirers ask why beef is high the answer is apparent in the price of corn. The advance in the price of beef cattle is 58 per cent while the advance in the price of corn is 100 per cent. Why is corn high? Ask the

brazen skies and the blasting hot winds of a year ago. The misfortune which befel the corn crops of 1901 is felt by consumers generally. Is any one to blame?

KANSAS FARMER'S NEW WALL ATLAS.

The KANSAS FARMER has arranged with the leading publisher of maps and atlases to prepare especially for us a new Wall Atlas, showing colored reference maps of Kansas, Oklahoma, Indian Territory, the United States and the World with the 1900 census.

The size of our new Wall Atlas is 22 by 28 inches. The outside map shows the flags of the United States, as well as the flags of all nations. In addition thereto is given a list of tables, an exhibit of the products and their values of the United States and the world. One of the maps shows all States, Territories and possessions of the greater United States and facts as to their capitals and first settlements and in relation to their general government, areas, population and legislature.

The atlas also gives the growth of our country showing the population of all towns by States, of 3,000 and over for the census years of 1880, 1890, and 1900.

This grand new census edition atlas also shows for every country on earth, the government, chief executive, area in square miles, population, capital and its population. This excellent educational work should be in every home. It sells for one dollar.

Every one of our old subscribers who will send us two new subscribers at fifty cents each for the remainder of the year, will receive a copy of this splendid new Wall Atlas postage prepaid.

WHAT DOES A BEEF STEER YIELD?

The question as to what the packers actually get from a beef steer has been much discussed lately. Every kind of figuring shows that when paying present prices for animals on foot and selling at even present wholesale prices for dressed beef they must get returns for more than the meat, hide, and tallow to make profits.

Nobody outside of the counting rooms of the packing houses knows exactly the valuable products yielded by a steer. It will not be forgotten that there is great variation in the net yield from steers. In discussions of this kind averages alone can be considered. For the purpose of getting a statement from somebody who knows, the editor of the KANSAS FARMER wrote to the Armour Packing Company at Kansas City enclosing a newspaper statement of the products from an average 1,200-pound steer and asked to have it corrected. Following is the reply:

EDITOR KANSAS FARMER:—Answering your note of June 28, the article you attach on "What a 1,200-pound Steer Produces," is, of course, very faulty in its figures. We hand you herewith the exact yield of a 1,200-pound steer. Would call your attention to the fact that the by-products are figured on the gross weights. For instance: the butter fat will average to weigh 80 pounds, but only 80 per cent of this will yield oleo oil. Raw tallow and entrails weigh 84 pounds, but they will only yield 14 per cent of rendered tallow, the balance going to the fertilizer. From the paunch the tripe is obtained, but the contents are simply a dead waste.

The products given in the article as being produced from a steer are, to a

large extent, accurate. Of course there are some exaggerations, but the day of carelessness in handling dressed beef is past, and unless the packer husbands the by-products and what used to be refuse, the ledgers are pretty apt to show on the wrong side at the end of the year.

The effects of the drouth of last summer are showing very plainly on the good cattle that we are getting now. In ordinary years a prime native steer will dress 60 to 62 per cent. Now what we buy as good native steers and pay 7.30 to 8 cents a pound for will dress 57 to 59 per cent. Cattle selling on the market at \$8.25 will dress 62 per cent, and we are not getting any finished cattle. This makes the percentage of yield all along the line much less. We have less oleo oil, less tallow and a smaller percentage of yield on all the by-products, a difference which is very material to the packer. What we call our prime beef now is costing us from 11½ to 12½ cents dressed, hanging in our coolers. On the basis of these costs it is practically impossible for us to sell our beef and make any margin. This is true of any packer who is doing business in the big markets to-day.

Trust this information will give you what you need. Very truly yours,

ARMOUR PACKING COMPANY,

H. E. KINNEY.

Kansas City, U. S. A., June 30, 1902.

Following is Armour's statement of what a 1,200-pound steer will yield:

A 1,200-pound steer will weigh—

	Pounds.
Hide.....	75
Head, feet, and knuckles.....	45
Butter fat.....	80
Liver, heart, and lungs.....	35
Cheek meat and tongue.....	10
Raw tallow and entrails.....	84
Liquid blood.....	46
Paunch and contents.....	106
Lip and weasand meat.....	4
Tail, trimmings, and casings.....	15
Carcass.....	700

Carcass will yield—

2 ribs.....	64
2 loins.....	124
2 rounds and rumps.....	172
2 chucks.....	239
2 plates.....	55
2 flank suet, etc.....	45
	699

SUPPLANTING THE PACKERS' TRUST.

The evolutions of the trust problems are interesting as their effects are important. The packers' trust is just now on trial before the public and likely to come to trial before the courts. But by the time the matter can be heard before the courts it is probable the packers' trust will be a thing of the past. That the great packers had entered a combination whereby they largely eliminated competition from the detail operations of buying animals on foot and of selling the products to retailers and to consumers is scarcely disputed. Whether they used the powers of such combination oppressively or to the benefit of the public is a question on which the several parties at interest are not likely to agree. But, however used, such combination is contrary to both the common law and to the statute in such cases made and provided. Present action by the packing interests leaves little room to doubt that they have been advised by their counsel of the illegality of the combinations under which they have been operating.

These packers—shrewd man of millions—are not fools. They have been operating as several large, distinct corporations and partnerships. Under the law the corporations had to report their

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capitalization, etc. Of the partnerships only the annual business is known.

Following are the latest semi-official statements of the several very large packing concerns:

	Capital Stock.	Annual business 1901, est.
Swift & Co.....	\$25,000,000	\$190,000,000
Armour & Co.....	20,000,000	200,000,000
Nelson Morris & Co., P'ts'p		100,000,000
Schwarzschild & Sulzberger.....	15,000,000	50,000,000
Hammond Company	3,600,000	50,000,000
Libby, McNeal & Libby.....	1,000,000	20,000,000
Cudahy Packing Co., P'tners'p		40,000,000

These concerns are managed by the best obtainable talent. Some of the men who built up these great businesses are dead. Others would like to retire from the strenuous activities of business. Just now the machinery of the law is in motion against the combinations heretofore existing. There is one way out of the toils of the law for all and from the cares of the details of business for many. That way is by the formation of all these great interests into one corporation. The capitalization of Swift & Co. is \$25,000,000. It is just as easy to incorporate with a capital stock of \$250,000,000, although it is not stated what will be the size of the new company. The owners of the several plants are taking stock in this great organization. This new company will buy the plants of the several old companies and place them all under one management. No trust laws will reach such arrangement.

In pointing out this progress of

events now taking place the KANSAS FARMER realizes the seriousness of the situation. This is the day of great organizations of industrial forces. That many economies can be introduced through such organizations is not disputed. But how shall that portion of the public which sells live stock to this one customer protect itself? How shall that portion of the public which buys its meats from this one vendor protect itself? Possibly the consumer can refuse to eat meat and thus hold the great packer to reasonable prices for his products. But the margin of profit for the packer is not likely to be curtailed.

It has been suggested that the situation as now developing presents a problem for statesmanship.

BUSINESS POINTERS FOR BREEDERS.

The KANSAS FARMER occasionally receives a letter from an advertising patron which says that he receives many inquiries through his advertisement but that this advertisement does not make him a sufficient number of sales. These parties seem to think that the purpose of a newspaper advertisement is to not only spread information in regard to the matter which they desire to place before the public but also to transact their business for them. This is all wrong.

A man may be the inventor of the greatest labor saving device on earth, the owner of the best selling article known to commerce, or the breeder of the finest of cattle or hogs, and if he does not advertise it shall profit him nothing. In these days of keen competition the man who would win a place of distinction in the breeder's world must not only know how to breed and how to feed but he must know how to advertise as well. The province of the agricultural and live-stock paper is to disseminate information such as will aid the farmer and stockman in his business. Important among all the classes of information that is so disseminated is the knowledge which is conveyed by the advertising cards of the breeders of pure-bred live stock. These advertising cards are just as important to the success of any pure-bred herd as is the extra care and shelter given to prepare them for the fair or show ring. No breeder can carry on business, much less win distinction, unless he advertises himself and his herd wisely and well. It is the province of the agricultural and live-stock paper to do this advertising for him and if successful it will result in inquiries for his stock. When this has been accomplished the work of the paper is done, and well done if the inquiries have been numerous. It then rests with the owner to complete the sales. Pure-bred live stock properly advertised is already half sold, and the breeder who carries an advertising card is simply paying another to do the larger and more difficult half of the necessary work. When he has received inquiries resulting from his advertisement the work has ceased and his own begun, in the completion of sale. The KANSAS FARMER takes pride in the wonderful record it has made as an advertising medium, and every day emphasizes the fact that the breeder who does not keep his sign up is soon forgotten and when he does begin to advertise again he has his work to do all over again to get the people acquainted with his herd. A continuous card keeps his name and herd before the public continuously and is undoubtedly the best investment that a breeder can make. No breeder can succeed without advertising.

THE EVOLUTION OF THE HIRED MAN.

Formerly the hired man on the farm was a being who stood low in the social scale; who lived a mere animal existence and who did an animal's work. He was not employed to use his brains nor paid to cultivate them. His work was purely physical and he was not expected to think. He had no ambitions and no thought for his employer's interests beyond the doing of the work he was ordered to do. His chief care seemed to be to secure an abundance of food and sleep and the rigid observance of holidays.

Under the older systems of farming the muscle not the brain of the hired man was employed and paid for. Animal strength was at a premium under the system which used the cradle and scythe and if he became what he was it was the fault of the system as much as of the man.

Now all this is changed and the hired man of the present day is as much in advance of his predecessor as the farming conditions and methods are advanced. Brains are now at a pre-

mium and the farmer is not only obliged by present conditions to pay for them but he is willing to do so.

With the tremendous advances that have been made in farm methods and machinery the hired man of the old days has ceased to exist and in his stead have come two new men who are as well equipped mentally for their work as he was physically. With the advent of improved farm machinery has come the necessity for trained machinists who can handle it while with the great development made in stock-breeding has come the necessity for men who understand the fine arts of breeding and feeding. The employee of the modern farm stands well socially while mentally he may be his employer's superior. In very many cases he is where he is because it is a means to an end. He is a young fellow of ambitions who secures employment on his neighbor's farm as much for self training as for any wages he may earn. He may be a young man who has partially trained himself at the Agricultural College in mechanical lines as well as in the sciences which underlie the profession of agriculture. This being true, his present reward is twofold. He not only receives increased wages because of his superior knowledge but he gains much of that experience which is so necessary to success in after years when he becomes the employer. Or, it may be that his natural bent leads him towards stock-breeding. If so, he gets his preliminary training at the same agricultural college and the farm experience which he afterwards gains shows him that he must possess peculiar qualities if he would succeed. He must not only know the herd-book thoroughly but he must know the individual animal "clear down to the ground." He must not only know the theory of feeding but he must know how to combine the available feed-stuffs of any season into properly balanced rations. He must not only possess an eye for form and quality in an animal but he must cultivate his moral qualities as well. A dog will instinctively trust a kindly person. So will a bull. Confidence and trust on the part of an animal is necessary and this can only be secured by kindness of disposition and a calm gentleness on the part of the herdsman. Animals who like their care-takers not only cause less trouble but they lay on flesh much more easily and always "do their best" either in the production of beef or milk.

While the old-time hired man was always obliged to "hunt a job" the new one is hunted for by the progressive farmer and breeder. Indeed, the KANSAS FARMER now has on file a number of requests for men who are capable of feeding and caring for pure-bred herds. Good wages are offered but the places are still open.

With the large growth of the tenant farmer system and golden opportunities now offered to the young man to enter the breeding profession what a chance for the young crowd! The progressive farmer and breeder is not only the monied man of the future,—he is it right now.

THE COUNTY FAIRS.

The KANSAS FARMER is now perfecting arrangements by which it will have a competent representative at each of the county fairs so far as it is possible to cover the ground. Aside from the regular field force we have secured the services of a number of the upper class students of the Agricultural College who desire to round out their training received at that institution by the practical experience afforded by these exhibitions and that of representing this great live-stock and agricultural journal. It will also be our effort to have a representative at each of the series of farmers' institutes which is shortly to begin. Secretaries of both fair associations and farmers' institutes will confer a favor by sending in an early notice of the dates on which these popular farmers' meetings are to be held in order that the KANSAS FARMER may arrange for proper representation at each of them. The campaign will begin with farmers' day at the Ottawa Chautauqua where our great Wall Atlas will be on exhibition for the benefit of new subscribers and in charge of Mr. H. R. Litcher of the senior class of the Agricultural College.

FORMERLY OF KANSAS.

We notice the newspaper reports of the proceedings of the Oklahoma board of regents, in charge of the normal schools, that Mr. Geo. D. Knipe, of Garfield, Kans., has been elected to a position on the faculty of the Northwestern Normal at Alva, and B. F. Nihart to a position in the faculty of the Normal at Edmond. Mr. Knipe is a former student of the Agricultural College at Manhattan and was for many years the effi-

IT IS SOLVED The question that has most agitated the ginner and compressors for years is that of a proper tie for cotton baling.

THE WIRE COTTON TIE

Has solved the problem. It combines strength and durability, ease and rapidity of application and is adapted to any kind of press. These ties are made from very tough and expensive steel, manufactured especially for the purpose by the Illinois Wire Co., Chicago. There is absolutely no breakage and the wire never slips, hence more density. The wire is round, therefore does not cut the bagging or fiber of cotton. Write for circular and prices.

WILLIAM CHRISTIAN, Agent, 203½ Main Street, Houston, Texas.

cient superintendent of the Manhattan city schools. Ill health caused him to drop out of school work for a time and retired to the farm, which he managed in connection with his father, ex-Representative Knipe of Riley County. Professor Nihart was elected professor of mathematics in the Agricultural College at Manhattan in the early 80s, and since that time has been prominent in educational work in Kansas, Colorado, and Oklahoma.

A HOT SUMMER BARGAIN.

There is every prospect of a lively summer. Never before in the history of the KANSAS FARMER have we received so many new subscribers during the busy summer months as we are receiving daily. It clearly demonstrates that the paper is an indispensable adjunct to the every-day business of the successful and busy farmer.

In response to the increasing demand for a thoroughly up-to-date Western farm journal the Kansas Farmer Company propose to spare no pains, effort, or money to meet every requirement of the present demand in supplying the best farm paper published.

We want 3,000 new subscribers before the close of 1902, and in order to get them quick—in blocks of two—we are offering big inducements. For a

ONE DOLLAR BILL

or 50 two-cent stamps, we will send the KANSAS FARMER every week until January 1, 1903, to two different persons, and will also send, postage paid, to each our

NEW DOLLAR WALL ATLAS

which is described elsewhere in this issue. This offer actually gives the takers Three Dollars in value for only One Dollar invested. This is a warm proposition and the bargain of the summer. But we are bound to have a big list of new subscribers, and want everybody to know it. Spread the news. Circulate the KANSAS FARMER.

We notice by the daily papers that several of the prominent Chautauquas held in Kansas are making a bid for popular favor in the announcement of Agricultural Day as one of the great days of each meeting. The Chautauqua at Ottawa will have Agricultural Day on July 15, with Secretary Wilson as the principal speaker, while the one at Beloit announces Agricultural Day for July 16, with Secretary Coburn as presiding officer and Secretary Wilson as the principal speaker. This is certainly a move in the right direction as there is no more interesting theme to be found in the world for popular discussion, and perhaps no better way to inaugurate this discussion than to secure the presence of, and addresses from the two men who best represent the agricultural thought and advancement of this preeminently agricultural age. These men are Secretary F. D. Coburn of Kansas, and Secretary James W. Wilson of the Department of Agriculture at Washington.

The KANSAS FARMER's prediction early in the year that the hog-raiser's vision of \$8 would be reached this summer was realized in fact at the Kansas City stock yards last Monday, July 7, when three full loads, not one of which weighed over 266 pounds, sold for that figure. This is the highest price realized at the Kansas City markets since March 6, 1893.

About Watch Cases.

Ordinary watch works may generally be made effective timekeepers by careful and strong casing. The finest grades of watch works require very strong casing to protect their delicate mechanism. The best of all cases for either class is the Jas. Boss Stiffened Gold Watch Case.

This is a gold case stiffened in the center with a plate of hard metal to prevent it getting thin and weak and bending down on the works, as a gold case does after a few years' wear.

The outside plate of gold is very heavy, much more than is ever worn from a solid gold case and much more than can be worn off in a third of a century's hard service. In fact this outside plate of gold is a quarter of an inch thick when the process of rolling down commences. At any rate, the Jas. Boss case is guaranteed 25 years, and none was ever known to wear out. The styles of the Jas. Boss case are

very elegant—the same as the finest solid gold cases—beautifully hand carved, superbly finished—very thin or very massive, as fancy may dictate—and in all sizes, for men and women's wear. The price is much lower than that asked for a solid gold case—the reason is that the Jas. Boss case saves you paying for gold that is never seen and never used.

Jewelers everywhere keep a full stock of these elegant cases—they have sold more than 7,000,000 of them, in the last thirty-five years. Ask your dealer to see them, or for the book showing why a Jas. Boss Stiffened Gold Case is better than a solid gold case, write to the Keystone Watch Case Company, Philadelphia.

Peculiar Texan Streams.

Prof. Thomas U. Taylor, of Austin, Texas, who has charge of the hydrographic work of the United States Geological Survey in that State, reports facts of considerable scientific interest, and also of much economic importance, which have been discovered in connection with the study of the Texan streams.

One of the most striking of these is the peculiar sympathy which exists between the volume of flow of certain rivers rising on the eastern edge of the Edwards Plateau region and the rainfall upon the extended surface of the plateau. The discharge of San Antonio River, for example, as of other streams in central Texas which have similar sources, seems to form a perfect indicator of past weather conditions of the higher plains, as far as the rainfall is concerned. Their flush periods follow closely periods of heavy precipitation, and their minimum flow comes only after dry years upon the plains.

The Edwards Plateau is the southern extension of the Great Plains region of the Central West, and extends over many hundreds of square miles in central and western Texas. The greater part of the rainfall of the region sinks into the soil and works its way gradually eastward and southward, appearing in gushing springs at the foot of the escarpment which there forms the boundary of the plateau.

Experiments at San Antonio have conclusively shown that the river and the artesian wells of the district have a common source, for when all of the artesian wells were permitted to flow for twenty-four hours the level of the head lake of the river was seen to sink several inches, but when the wells were shut off the waters of the lake returned to their former level in about the same time. When graphically plotted the curve of maximum rainfall and the curve of maximum flow in these large springs are similar, the crests of the latter following those of the former.

State of Ohio, City of Toledo, Lucas Co. ss. Frank J. Cheney makes oath that he is the senior partner of the firm of F. J. Cheney & Co., doing business in the city of Toledo, county and State aforesaid, and that said firm will pay the sum of ONE HUNDRED DOLLARS for each and every case of Catarrh that can not be cured by the use of Hall's Catarrh Cure.

FRANK J. CHENEY.
Sworn to before me and subscribed in my presence, this 6th day of December A. D., 1896.

A. W. GLEASON,
[Seal.] Notary Public.
Hall's Catarrh Cure is taken internally and acts directly on the blood and mucous surfaces of the system. Send for testimonials free.

F. J. CHENEY & CO.,
Toledo, Ohio.
Sold by Druggists, 75c.
Hall's Family Pills are the best.

The Air
taken into the water by the
descending buckets of the
PERFECTION
Water Elevator and
PURIFYING PUMP
changes the foul water in well or
cistern to sweet, clear, healthful
water, purifies it as no other
device or method can and keeps
it pure. Is a simple, easy, eco-
nomical pump, fitted to any well
or cistern. Steel chain and buck-
ets galvanized after making.
Has every desirable feature.
Lasts a lifetime. Thousands in
use. Price complete, freight pre-
paid, only where we have no agents
for 10 ft. well or cis-
tern. Add 20 cents for
Catalogue Free.

\$7.00

See Air Bubbles.
each additional foot in depth.

ST. JOSEPH PUMP & MFG. CO.,
805 GRAND AVE., ST. JOSEPH, MO., U. S. A.

Agricultural Matters.

Wheat Worms.

EDITOR KANSAS FARMER:—The wheat worm, which has done much damage in many parts of the wheat region this summer, seems to be a mystery to many. The worms appeared about the time the wheat began to head, and remained until the wheat went to stack. The damage done by these worms is that they crawl up the stalks and eat out the kernels. As the wheat ripens and the grain hardens, the worms only eat off the chaff, but this allows the grain to drop out.

These worms, or strictly speaking caterpillars, are not anything new; they have appeared before, and will doubtless be seen again. Entomologically classed they are of the order Lepidoptera of which there are over 6,000 species in America, north of Mexico. The caterpillars above referred to, belong to the family Noctuidae, so called because the adults, which are commonly called millers, are usually seen flying about in the evening after or about dusk. There are over 1,600 species of this family alone in our country. It includes a great many of our most troublesome caterpillars, such as the army-worm, cut-worm, cabbage-worm, corn-worm, apple-worm, etc.

As there have been several species observed to attack the wheat, it is not possible to identify just what one it is, but some of them closely resemble the army-worm. However, they all have the same habits. These worms that are now, or have been bothering the wheat, when they have become full grown, burrow into the ground an inch or so, and prepare winter quarters. They excavate a small cell, excrete a cement that makes it waterproof to some extent, and then make a cocoon, or papery sack in which they enclose themselves. During the time they spend in this cocoon, or pupa case, they change from the caterpillar to a miller, which emerges next spring to lay a supply of eggs in the wheat, from which a new lot of worms or caterpillars is hatched.

Some of these species do not get their full growth the first summer, so the worm lives over and begins work early again the next spring. The cut-worm is an example of one of these.

The life history and an observation of the work of these pests will doubtless suggest means of combating them. The wheat which was drilled in stubble was attacked very much more than that planted on plowed land. Plowing the ground throws the pupas out and breaks them up so that they are destroyed. Carefully plowing in the fall all the land infected is the most successful method of combating. The adults usually deposit their eggs near where they have passed the winter, but some of them may be blown to other fields at some distance. Another means of lessening the damage done by them is to rotate the crops. It is very seldom that the same species of worms will do damage to two different crops. Dr. Henry Wallace says that these pests of bugs, worms, and weeds are God's warning that we must not deplete the soil by growing continually, year after year, the same crops on the same land. Rotate the crops or we will be rotated off the land. J. G. HANEY, Superintendent Fort Hays Branch Experiment Station, Hays, Ellis County.

Wheat Alfalfa.

EDITOR KANSAS FARMER:—The wheat harvest is over and almost everybody has his wheat cut and in the shock in good shape. Immense rains have set in and the way it looks after July 1, after nearly an all night's rain right on the heels of several other rains, it is sure to be damaged badly—how much time alone will tell. Only one field was threshed before the heavy rains came on. The yield was less than last year. The quality, however, is very fine. Ross-ville Township gave an average yield last season of 33.7 bushels per acre; there was some dispute about the yield and to settle the matter a careful canvas of the wheat was made, every acre good, bad, and indifferent being taken, with the above results. The quality was also very fine, averaging about sixty-two pounds to the bushel.

The quality this season will also be very fine yet I do not look for the yield to be over seventeen or eighteen bushels on the average, for the reason that it was too thin on the ground. Usually, when the quality is good the yield is heavy, which is not the case this season. I never saw the corn laid by looking so well. Not all are done cultivating but the bulk of the farmers are through and those that are not will be compelled to quit as the ground in near-

ly all the fields would mire a team. The wheat in the shock must be considerably damaged now—how much is only a guess. The yield from one seven-acre piece of alfalfa which I sold last season was weighed and the yield averaged a little over two and a half tons. This was the first cutting. I sold the first cutting off the same piece this season which, when weighed, averaged a scant ton and a half. Last season, up to April 20, was very wet and in the same time this spring it was very dry. The second cutting is now ready but it has been so wet we were afraid to tackle it. I think the second cutting will yield more hay than the first.

I have twenty-six acres of alfalfa which was sown last fall. The most of the first crop was hardly worth cutting, the second crop will be much better. My fall-sown got such a set-back owing to the dry weather in March, April, and May that it will take all season to catch up with it. A few pieces sown this spring are actually ahead of the fall-sown, yet there may be none of the spring-sown there by fall as the season for crab-grass is just now coming on and may choke it all out. Crab-grass is the worst enemy in getting a permanent stand that I have ever had to contend with and from this time on the more it is mowed the more it spreads and the larger the roots get. I am of the opinion just for myself and on my own land that I have been sowing too much seed to the acre and in the future I shall sow ten pounds of seed and I would rather have a little less than more. I may tell why at some future time. M. F. TATMAN, Rossville, Shawnee County.

Agricultural Colleges and Agriculture.

Secretary F. D. Coburn, of the Kansas State Board of Agriculture, is a man of decided views. His positions are reached by careful research and he has the courage of the man of well-grounded convictions. What he thinks can be at all times known from his clear statement of the case. Recently he was asked:

"Is there not a general tendency in the agricultural college to drift away from agriculture?" Mr. Coburn said:

"Not particularly of this college. That's the case in all the agricultural schools. Of course, if it keeps on in that course the agricultural side of the agricultural college will gradually be lost. But I don't believe that'll ever come, for the people and the men at the head of the school will see and then there'll be a change in policy that will make agricultural schools of the agricultural schools. I never could be gloomy over a thing of this kind; I know there'll be a change.

"The remarkable feature of this gradual abandonment of agriculture in farm schools is that the men controlling the colleges are sincerely and earnestly friendly to agriculture. They're doing away with agriculture unconsciously. 'I don't want to grumble, and what I say is from earnest conviction after thirty-six years' experience as a farmer, as agricultural editor and as regent of this school; I can't dodge the feeling. I have been secretary of the board of agriculture nine years, and held the same office twenty years ago. That simply gives me an insight into these things.

"The government intended this to be primarily an agricultural and industrial school, which would differentiate it from any other school in the State. That doesn't mean the repression or doing away with other useful studies, but does mean keeping agriculture and animal husbandry preeminently to the fore. The man who is responsible for the teaching of agriculture here, the man at the head of the department, should be the big man in the faculty next to the president, and be so recognized by everybody without question. He should be worth more money to this college than any other man in the faculty.

"This agriculture I speak of doesn't consist of raising corn to ship to market, but means to convert corn into milk and meat. It's teaching a boy whose father has been getting 17 cents' worth of meat out of a bushel of corn how to get 35 cents' worth by proper feeding. That's the way the State of Kansas will continue to gain wealth.

"This country is full of men with university training, but we can't find enough good men to teach agriculture, animal husbandry, and dairying. Only last month we lost Professor Cottrell. Other schools wanted him, and while they were deciding on how much to go over our salary, Vrooman, the cooperative man, offered him nearly twice what the State of Kansas was paying him. In addition he is to have a new house and a large sum for fitting the home. Now, let us give you an example of how the agricultural department is gradual-

ly forced into the background in these schools: Fifteen years ago, when Kansas was in hard luck and most of the people were nearly desperate, the professor of agriculture here was paid \$2,200 a year. Queensland, in Australia, needed him and offered enough to take him away. The next man to come here was paid \$2,000 a year. He left for a bigger salary. Then came Professor Cottrell; he was paid \$1,800. He goes for a bigger salary, and now candidates are told that the salary will be from \$1,500 to \$1,800. Another change or two in this direction and what should be the most important professor in this institution will be getting little more than a good janitor earns.

"As I said before, I see the change is coming. Agricultural schools will be agricultural schools as soon as the regents realize that the farming side is being neglected, and that isn't going to be a long time off; at least not in Kansas."

Commenting on the above, the Drovers' Journal says:

"The change Mr. Coburn speaks of is not 'coming'—it is already here. The Illinois Agricultural College is engaged in the work of organizing young farmers' clubs in every county in the State. While this work is yet in its infancy there are more than 1,500 young men conducting experimental work under the direction of the college authorities. Iowa, Indiana, and other States are systematically engaged in the work of college extension, and the agricultural college is now on a purely agricultural basis, where practical farming is taught."

Conclusions of the Minnesota Experiment Station.

(1) When wheat was grown continuously upon the same soil for eight years, there was a loss of 1,00 pounds per acre of nitrogen, about 300 pounds being utilized as plant food and 1,400 pounds lost by the decay of the animal and vegetable matter of the soil and the liberation of the nitrogen as gaseous and soluble compounds. During the eight years of continuous wheat cultivation there was a loss of over 21 per cent of the total nitrogen of the soil, equivalent to an annual loss of 175 pounds per acre in addition to that used as plant food.

(2) When wheat was grown in a rotation with clover and oats, five crops of wheat being removed in eight years, larger yields per acre were secured and the total loss of nitrogen from the soil was reduced to 800 pounds or about 450 pounds in excess of that utilized as plant food. When corn was grown with clover and oats in a rotation and farm manure was used, the total loss of nitrogen from the soil, for eight years, was less than one hundred pounds in excess of that removed as plant food.

(3) When the oats and barley were grown continuously the losses of nitrogen from the soil were nearly as large as when wheat was grown continuously.

(4) When corn was grown continuously the loss of nitrogen from the soil was less than half as large as when wheat was grown continuously. When corn is introduced into a rotation of crops, the losses of nitrogen are less than if wheat were grown.

(5) When wheat was grown continuously there was an annual loss of over 2,000 pounds per acre of humus due to the fermentation and decay of the animal and vegetable matter of the soil. When wheat was grown in a rotation with clover and oats, no material loss of humus from the soil occurred.

(6) The loss of humus changed the physical properties of the soil, causing it to be less retentive of moisture, lighter in color, and heavier in weight per cubic foot. During times of drouth the soil from the continuous wheat cultivated plot contained less water than the soil from the plot which produced wheat in rotation with clover. Humus conserves the moisture of the soil, while the rotation of crops, the use of farm manure and the growing of clover, conserves the humus of the soil.

(7) When bare summer fallowing is practiced, a heavier loss of nitrogen occurs than when wheat is grown continuously. Summer fallowing favors the decay of the humus and the loss of nitrogen. While larger crops of wheat are produced after a year of fallow, this increase is followed by a heavy loss of the total nitrogen of the soil. Summer fallowing rapidly exhausts the soil of its nitrogen.

(8) When the nitrogen and humus of the soil were conserved by the rotation of crops and the production of clover, an increase of twenty bushels per acre of corn, and five and six-tenths bushels of wheat were secured.

(9) Wheat is not an exhaustive crop when it is grown in a rotation, but when it is grown continuously the fertility of the soil is impaired. It is not

THE MAN IN ARMOR

Was no match for the microbe. Giants he might slay but this microscopic organism defied him, and in many a campaign more men were destroyed by camp diseases than by the enemy's sword.

The one way to arm against microbic disease is to keep the blood pure. Impure blood both breeds and feeds disease.

The signs of impure blood are easy to read. Pimples, boils, and eruptions generally proclaim the blood to be impure. Scrofulous sores and swellings, salt-rheum, eczema, etc., are other signs of a corrupt condition of the blood.

Doctor Pierce's Golden Medical Discovery purifies the blood and cures diseases caused by the blood's impurity. It cures scrofulous sores, boils, pimples, eczema and other defiling and disfiguring diseases.

"It gives me great pleasure to express my faith in the virtue of Dr. Pierce's Golden Medical Discovery," writes Mr. Ezekiel Floro, of Graytown, Ottawa Co., Ohio. "I suffered everything for two years with humor on my face, which baffled the skill of some of the most noted physicians. Was at once advised to go to the hospital; was doctored there for three months without success. Came home discouraged. Then began to doctor with a 'chemist.' He also failed to help me. Then I began Dr. Pierce's Golden Medical Discovery, with no faith whatever in it. Did it only to please my wife; but I am happy to tell you that after taking five bottles I am entirely cured."

FREE. Dr. Pierce's Common Sense Medical Adviser is sent free on receipt of stamps to pay expense of mailing only. Send 21 one-cent stamps for the book in paper covers, or 31 stamps for the cloth-bound volume. Address Dr. R. V. Pierce, Buffalo, N. Y.

the crop itself that reduces the fertility, but it is the lack of systematic methods of farming which cause the decline of fertility. Old wheat soils readily recuperate when some humus forming materials are returned to the soil. By the rotation of crops, the use of farm manures and the cultivation of clover the heavy losses of nitrogen and humus from the soil can be checked, and larger yields and a better quality of wheat secured.

Likes the "Eleventh Commandment."

EDITOR KANSAS FARMER:—In your editorial entitled, "The Eleventh Commandment" on page 692 of last week's KANSAS FARMER is summed up the whole gospel of permanent agricultural success in this State.

The farmer who continuously raises grain to market as such off the farm is a mere parasite on the soil, gradually but surely sapping its fertility and making the country poorer every year by living in it. On the other hand the man who converts his soil products into live stock at home practices the methods, other things being equal, which not only tend to his own sure prosperity but the upbuilding and enrichment of his community.

All experience shows that exclusive, continuous grain raising leads via the mortgage route to the poor house, while the rational growing and fattening of well-bred stock on the products of the farm always leads in the opposite direction. You say "Sell nothing from the farm which can not walk." Paraphrasing this somewhat I would say, "Don't haul your produce to market; drive it." Wyandotte County, Kans. ARGUS.

Make no Alfalfa Seed the First Season.

EDITOR KANSAS FARMER:—I have been deeply interested in the various letters on alfalfa in your paper. I have a piece which was sown last fall, and I cut a fair crop of hay the last week in May. I would like to know how it would do to cut the second crop for seed.

Olathe, Johnson County. W. M. G. It is generally considered better for the future of the alfalfa if it is not allowed to make any seed the first year. Bringing forth seed draws heavily upon the vitality of the young plants.

"ELI" BALING PRESSES

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They are Balers, not mere bundlers of hay. The bales are even in size and so compact that they put full weights in car. That saves freight. That is like "finding money." Largest feed opening. Require less power than any similar machine of same capacity. Made in 25 styles and sizes for horse or steam power. Illustrated catalogue mailed free. COLLINS FLOW CO., 1120 Hampshire St., QUINCY, ILL.

Horticulture.

What Ails the Pear Trees?

EDITOR KANSAS FARMER:—I write to you to learn what is causing the limbs of my pear trees to die and what remedy I can apply to stop their dying.

Both last year and this I put a slight mulching around the trees. Last year I noticed a few dead limbs; this year a great many more are dying. The trees are about twenty years old.

I have examined the trunk and limbs of the trees with a microscope and have discovered small insects working around the knots and under the bark. The body of the bug is round and of a glossy, brownish-black color. The head is triangular in shape. The eggs are white. I give you this description, thinking that this insect may be the trouble.

J. M. DOUBLEDAY.

Blackstone, Sumner County.

This inquiry was referred to Professor Albert Dickens of the Kansas Agricultural College who replies.

It is hard to say from this description just what is the matter with the trees. It is very probably blight and I hardly think that the mulch has changed conditions to such an extent as to predispose the trees to the disease. It is impossible to identify the insect from the description. If we had specimens of the dying limbs and of the insects we could probably answer the question. We print Professor Dickens' reply as

taste, in some cases decidedly like putrefaction.

I copy from Prof. Wm. C. Sturgis a few points on its life history:

"The bacteria causing blight are extremely minute, oval or rod-shaped organisms, occurring in great numbers in the diseased tissues and possessing to a slight degree the power of motion. * * * They live and multiply upon dead vegetable matter in the presence of moisture. * * * The bacteria as they exude from the diseased tissue are washed down by the rain, or fall to the ground with the leaves and twigs containing them; upon the decomposing vegetable matter surrounding them they multiply with rapidity and when dry are disseminated by the wind or by currents of water. Borne by the air in spring time they find a lodgment upon the neighboring trees; on the moist surfaces of the delicate parts of the flowers and upon the growing, succulent tissues of the young twigs and leaves, they find conditions favorable for growth, soon enter the tissues, and in the course of a few weeks give external evidence of their presence in blackened leaves and shoots. * * * Very tender tissues and a moist atmosphere are the primary requisites for the inception of the disease, and when it makes its appearance on the branches or trunks it may usually be traced to spurs at the base of the limbs or to adventitious shoots arising upon the trunk in the spring. The sting of insects, open wounds, whether caused accidentally or by the pruning knife, and in fact any injury, may admit the

newly set fruit-trees. Generally the first part of June is a good time to apply mulch, the exact time depending somewhat upon the season.

Deep Borings in the United States.

The deep well borings of the United States, made for water, oil, and gas are the subject of a statistical report by N. H. Darton, in the series of water-supply and irrigation papers of the United States Geological Survey. The list of deep wells is arranged by States, in alphabetical order, and appears in two pamphlets known as Water-Supply Papers Nos. 57 and 61. All wells 400 feet or over in depth are carefully listed. Depth, diameter, yield per minute, and other characteristic data are given, and many instructive details are noted indicating for what purpose the borings were originally made, the character of the product obtained, and whether the wells are in use or abandoned. For the benefit of persons desiring more detailed information concerning wells in any particular region, references are given to the literature or other sources from which the data were obtained. The large product of natural gas in the East and the West, the enormous output from the oil fields in California, Texas, and the East, and the considerable and indispensable water supply furnished by the deep wells on the plains and in the arid and humid States, makes concise and accessible information of this nature valuable for economic and scientific purposes.

A MYSTERIOUS APPEARANCE

IN THE QUIET LITTLE VILLAGE OF WILSEY, KANSAS.

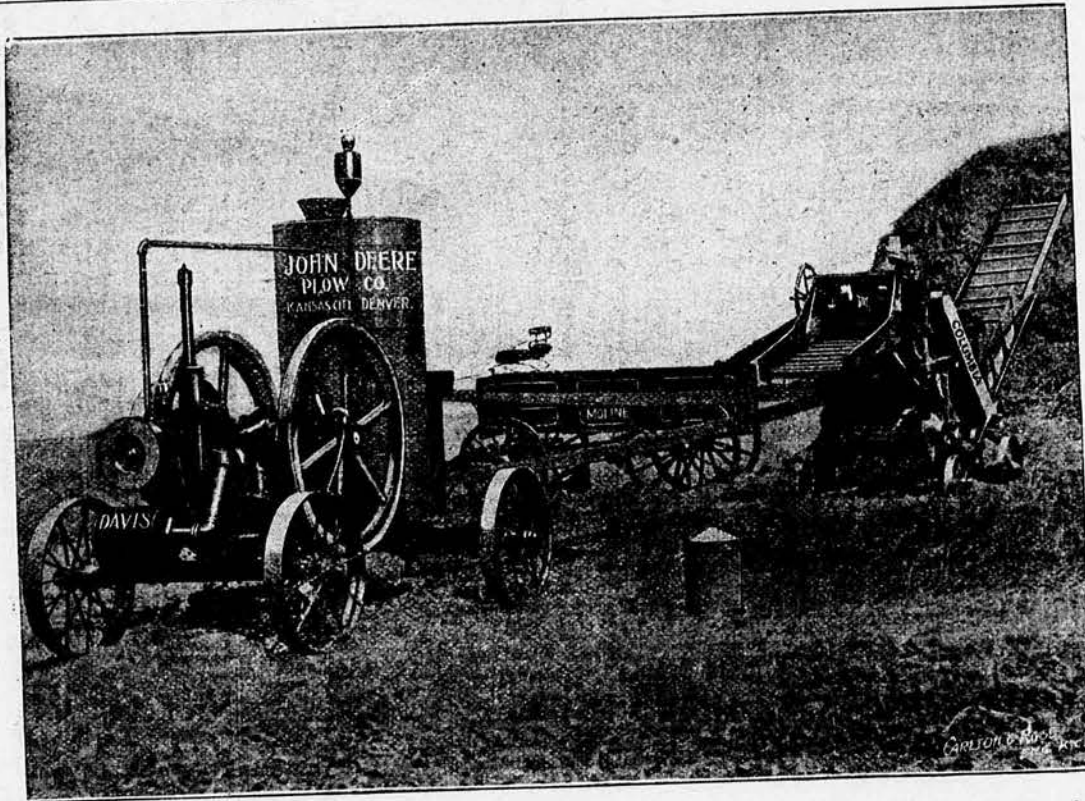
A Strange Event With a More Wonderful Sequel—Its Effect on the After-life of One Woman.

About six years ago a stranger, a woman, came to the little village of Wilsey, Kans., to live. This was the important link in a chain of events which set the whole town wondering. Mrs. Rachael A. Gardner, the person whose life was most affected by it, tells the story.

"It was very strange," she says. "I never could tell what caused it and neither could anybody else. For a long time I had bad spells with my stomach. The pain would commence about my heart and was so deadly agonizing that I would have to take laudanum to stop it. Besides this I had a headache almost constantly, day and night, that nearly crazed me and hemorrhages caused by the change of life, so you see I suffered a great deal. And when I think of the agony it still makes me shudder."

"Doctors, did you say?" Their medicine made me sicker. I couldn't take it and I kept growing worse until this lady came to our village. She advised me to take Dr. Williams' Pink Pills for Pale People and I did. I only took half a box before I began to feel better and after taking the rest, was wholly converted to this wonderful medicine. It did me more good than I had ever hoped for. I kept on with the pills and now I recommend them to all who suffer."

The pills which cured Mrs. Gardner have accomplished as wonderful results in hundreds and hundreds of other cases just as severe. They are an unfailing specific for locomotor ataxia, partial paralysis, St. Vitus' dance, sciatica, neuralgia, rheumatism, nervous headache, after-effects of the grip, palpitation of the heart, pale and sallow complexions and all forms of weakness either in male or female. Dr. Williams' Pink Pills for Pale People are sold at all druggists, or will be sent direct from Dr. Williams Medicine Co., Schenectady, N. Y., postpaid, on receipt of price, 5 cents per box; six boxes for \$2.50. Send for free booklet of medical advice.



Small Threshing Outfit Sold by John Deere Plow Co., Kansas City, Mo. See Page 677, Kansas Farmer, June 26, 1902.

a suggestion as to the information that should accompany an inquiry. In all cases wherein it is possible specimens should accompany the inquiry. Both insects and plant diseases are hard to identify from the best possible description. The KANSAS FARMER is always glad to receive enquiries on all matters touching farm interests. These will be answered by the best authorities on the subjects involved. It is hoped that Mr. Doubleday will supply the specimens.

Blight—Cucumber Aphid.

EDITOR KANSAS FARMER:—I would like to know the cause of our apple-trees dying. The trees are about 8 years old, and just beginning to bear well. When a tree begins to die a few dead twigs are noticed up in the tree then one side of the trunk turns black and scales. As soon as the scale reaches a branch it dies and so continues until the whole tree is dead. If the tree is cut off at the ground a shoot will spring up from the roots. What would you advise for this disease? Would you let the young shoot grow? What is the best thing to place on melon-vines when small green bugs get on the under side of a leaf causing it to curl up and die?

D. W. McVEY.

Sterling, Rice County.

ANSWERED BY PROF. ALBERT DICKENS, KANSAS EXPERIMENT STATION.

The description seems to indicate the presence of blight, though the bark characters might be caused by sun-scald or from severe winter injury. The blight can usually be detected by a more or less disagreeable odor and

germs and thereby indirectly cause the disease."

Spraying is of less value with any bacterial disease than with other fungous diseases. Whenever the blackened shoots are noticed—and the successful grower must look for them—they should be removed by cutting away the affected part at least six inches below the point where the tissue seems healthy. This work must be done early and the diseased parts must be burned at once. When large branches are removed the wound should be covered with grafting wax or shellac which contains some carbolic acid.

Trees which are growing very rapidly are more liable to be affected than those in which the growth is slower and the wood better ripened. The insect is the cucumber aphid. Kerosene emulsion should be applied as soon as it is noticed. It is well to spray in the evening to avoid scalding the leaves.

One advantage in mulching many varieties of trees and plants is that a good mulch not only keeps the weeds down but aids materially in retaining moisture in the soil, as well as keeping the soil loose and friable. If the soil is in good tilth when the mulch is applied the soil will keep in good tilth through the rest of the season, and in doing this the work of cultivation will be materially lessened. A mulch should be applied before the season gets hot and dry. Sawdust or even coal-ashes, while not of any special value as fertilizers, can often be used as mulch to good advantage at this time with most varieties of small fruits as well as a majority of

Entertaining Newspaper Features.

Probably no other newspaper in the United States can show so brilliant an array of special features as is found in the columns of the Chicago Record-Herald.

The daily and Sunday news and special features of the Chicago Record-Herald include the letters of William E. Curtis and Walter Wellman, the Record-Herald's special New York dispatches, its unparalleled foreign news service, embracing its own special cables with those of the New York Herald and the Associated Press; its pages devoted to the markets and financial and commercial intelligence—exhaustive to the most satisfactory degree—its popular sporting page, its extended editorial department, Kiser's humorous "Alternating Currents," "Stories of the Day," the departments of railroad and insurance news, music and drama, society and clubs, the column of book reviews, the continued story, the "Woman Beautiful" department, the daily fashion article, "Meals for a Day," news of the great lakes, etc.—all uniting to furnish to the people of Chicago and the Northwest a newspaper which commands itself to discriminating readers as only a newspaper can which combines the world-wide facilities of the greatest metropolitan newspaper of modern times.

"The Gem" Full Circle Baler.

The attention of the farmer about to purchase a baling press is called to "The Gem." This baling press is the result of years of careful study and numerous experiments. It has been clearly demonstrated

ed to fulfill every requirement and withstand every test needful to establish it a strictly first-class and up-to-date machine—the lightest, strongest, and cheapest baler ever mounted on wheels, correct in principle and exact in operation.

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A very valuable and interesting book for farmers, illustrated and full of information, is sent free upon request by George Ertel Company, Quincy, Ill.

First Class in Every Case.

Office of J. & W. Baker, Cape Cove, P. Q., March 6, 1902. Dr. B. J. Kendall Co., Enosburg Falls, Vt. Gentlemen:—Find enclosed a 2-cent stamp for which please send me a copy of your "Treatise on the Horse and His Diseases." We have used your Kendall's Spavin Cure and find it first-class in every case. Yours very truly, CLEMENT DUMARESY.

If your brain don't work right and you miss the snap, vim and energy that was once yours, you should take Prickly Ash Bitters. It cleanses the system and invigorates both body and brain.

STARK TREES best by Test—77 YEARS FRUIT BOOK free. We CASH WANT MORE SALESMEN **PAY** Weekly STARK BROS., Louisiana, Mo.; Dansville, N. Y.; Etc.

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ALFALFA SEED FOR FALL SOWING. We can furnish pure, plump, vigorous seed crop 1901 in car or one-bushel lots. Also all other kinds of field seeds. Write us for prices.

McBETH & KINNISON, Garden City, Kans.

The Stock Interest.

THOROUGHbred STOCK SALES.

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

August 1, 1902—American Berkshire Association, at Kansas City, Mo.

August 8, 1902—Combination sale of Berkshires, at Kansas City, Mo. Chas. F. Mills, Mgr.

August 18, 1902—American Berkshire Association, at Kansas City, Mo.

August 22, 1902—Harry Sneed and McFarland Bros., of Smithton, Mo., Duroc-Jersey hogs at State Fair, Sedalia, Mo.

September 2, 1902—L. M. Monsees & Sons, registered saddle horses, mules, and registered Poland-Chinas, at Smithton, Mo.

September 10-12, 1902—Mid-Missouri Combination Sale of Angus, Galloways, Shorthorns, and Herefords, in connection with the North Missouri Fair, Chillicothe, Mo.

October 1, 1902—Wm. Plummer, Poland-Chinas, Barclay, Kans.

October 7-8, 1902—J. S. McIntosh, Kansas City, Mo., Shorthorns

October 18, 1902—J. W. Dawdy, Abingdon, Ill., and D. L. Dawdy, Arrington, Kans., at Galesburg, Ill., Shorthorns.

October 20, 1902—E. E. Axline, Poland-Chinas, Oak Grove, Mo.

October 21 and 22, 1902—Herefords at Kansas City, Mo., under auspices of American Hereford Cattle Breeders' Association. (Week of American Royal.)

October 22-23, 1902—Combination sale of Berkshires, at Kansas City, Mo. (Week of American Royal.)

October 23, 1902—J. B. Davis, Duroc-Jerseys, Fairview, Kans.

October 20-25, 1902—American Royal Swine Sale Berkshires, and Poland-Chinas, Kansas City Stock Yards.

October 31, 1902—J. C. Hall, Hallsville, Boone Co., Mo., at Centralia, Mo., Shorthorns.

November 1, 1902—H. M. Kirkpatrick, Farm sale of Poland-Chinas, Wolcott, Kans.

November 6, 1902—Thos. Andrews & Son, Cambridge, N.H., Shorthorns.

November 18, 1902—Geo. W. Berry, North Topeka, Manager, Combination sale of Berkshires. Manhattan, Kans.

November 18-19, 1902—Marshall County Hereford Breeders' Association Sale, Blue Rapids, Kans.

November 28-29, 1902—W. P. Harned, Vermont, Mo., and F. M. Marshall, Blackwater, Mo., at Kansas City, Mo., Godoy Shorthorns.

December 4 and 5, 1902—Herefords at Chicago, Ill., under auspices of American Hereford Cattle Breeders' Association. (During week of International Cattle Show.)

December 8-9, 1902—J. E. Logan and Benton Gabbert & Sons, Kansas City, Mo., Herefords.

December 16, 1902—Gifford Bros., Manhattan, Kans., Shorthorns.

January 12-17, 1903—C. W. Armour and Jas. A. Funkhouser, Herefords, at Kansas City, Mo.

January 23-29, 1903—C. A. Jamison, Peoria, Ill., Shorthorns, at Chicago.

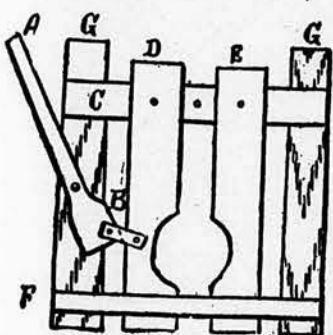
February 17, 1903—Geo. F. Kellerman, Shorthorns, Kansas City, Mo.

A Breeding Crate.

EDITOR KANSAS FARMER:—When a herd boar is of great value and reaches a mature age and large size, or when it is thought best to keep the herd boar in good, fair-showing condition, it is necessary to use a breeding crate to prevent over excitement and consequent over heating in hot weather. Every hot season we learn of some valuable animals dying of over heat.

Before breeding, both animals should be thoroughly sprinkled with cold well water, the crate used and the animals immediately separated.

For my two-year-old herd boar, Black Mo. Chief, which is six feet long from roots of ears to root of tail and two feet wide, weighing 700 pounds, I fixed over an old crate, which I used for holding hogs to snoot them, by taking out the top and building up the rear end and adding side pieces for his front feet. I can still use this crate for holding hogs the front end of which looks like this:



A is handle. Bore hole two inches from large end, another ten inches. B is iron bar one-half by one and one-half by six inches, hole in each end for bolts. C, crosspiece with holes for adjustment. D and E, two by six inches, shaved to fit hog's neck. E is stationary. F, two two by four two and one-half inches apart for D to slide in. G, posts two feet apart. With this device one can hold the largest hog with one hand and ring with the other.

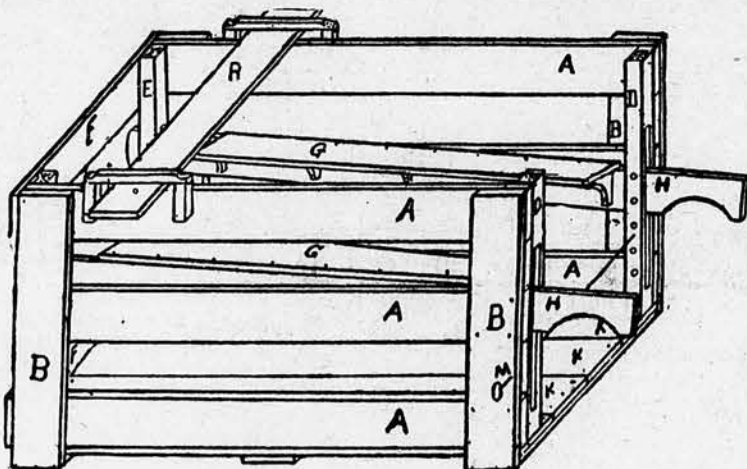
The rear end of the crate is built after the plan shown here.

The box is built of good fencing boards and two by four scantling. Dimensions: Five feet long and two feet wide, outside measurement, and two feet seven inches high inside. But if one has a large and broad breed of swine the width should be correspondingly increased. Make the floor first, using for foundation three one by six-inch cleats, one in center and one on each end. Cover with inch boards, as shown at KK.

The uprights, BB, are one by six inches, two feet nine inches long, and nailed to bottom, as shown in sketch.

The construction of the frame is clearly shown by the cut. The inner uprights, DD and E, are two by four, secured by long wire nails driven from the outside, and slotted, as shown, which slots are adapted to the adjustment of levers, H.

The height of levers can be adjusted as required and held in place by pins. Each lever is provided with a shelf, G, attached by brackets, as shown. The



chin rest, R, secured in place as shown, is 12 inches from end of box. The levers and shelves, H and G, forming the foot rest, should be of tough, hard wood, and so securely fastened that the animal's weight will not break them down. It is best to have two sets of foot rests, one with three to four-inch shelves, and one with six-inch, to accommodate sows of different sizes. The small iron rod, M, is inserted to prevent the sow from backing out. Manner of using the box will at once suggest itself. It will require some time and patience to accustom the male to the box; in fact, the best way is to get him accustomed to it while young, if he is likely to be heavy enough to require it when fully matured.

J. CLARENCE NORTON.

Moran, Kans.

Success of Pasteur Vaccine.

EDITOR KANSAS FARMER:—I have noticed in some of your recent issues a correspondence in regard to the success attending the vaccination of live stock. It is true that my experience only covers the original product, that is to say the vaccines made by the eminent scientists who discovered them, namely, the anthrax vaccine discovered in 1881 by Pasteur, Chamberland, and Roux, and the blackleg vaccine which, as a consequence of the above, was perfected in 1884 by Arloing, Cornevin, and Thomas. However, as these original vaccines with which I am familiar have during the past eighteen years been used upon about 43,000,000 of animals, I say forty-three millions, and as this represents about 95 per cent of the total number of animals that have been vaccinated since these live-stock vaccines were discovered, the experience with them may be considered a fair sample of what has been and can be accomplished by vaccination. These operations cover Europe, North and South America and Australia.

The average mortality from anthrax in the districts infected with the anthrax germ may be considered as 25 per cent, though this mortality has of-

ten run from 60 to 100 per cent. However, by treatment with Pasteur's anthrax vaccine this mortality is reduced to an average of one-half of 1 per cent, that is to say one animal out of every 200 vaccinated may fail to be immunized. It is admitted on all hands that Pasteur's anthrax vaccine is a decided success, as evidenced by its employment during eighteen years upon about 23,000,000, and with a reduction of mor-

ality from an average of 25 per cent to one-half of 1 per cent.

Anthrax attacks cattle, horses, mules, sheep, and even goats, but blackleg is most common among cattle, and particularly young cattle. The better the breed and the better the condition of the animal the more susceptible it is to blackleg, provided always that the element of infection, that is the blackleg germ, is present. The mortality from blackleg among young cattle in infected regions ranges from 1 per cent to 30 per cent, though the average is 11 per cent. The original blackleg vaccine, still made by Arloing and Thomas, and furnished in this country by the Pasteur Vaccine Company, has been used upon 20,000,000 head of young cattle during the last eighteen years. One evidence of its success is the fact that it has been very largely imitated. However, so far as the material success of the original product is concerned, I would say that when the double treatment is given the losses from blackleg among vaccinated stock during the usual period of protection is one-tenth of 1 per cent, that is to say that out of 1,000 animals so vaccinated one, and only one, will on the average fail to become sufficiently immunized. These results are obtainable even among pure-bred stock. With the single treatment the results are not quite so good, as the losses from blackleg during the usual period of protection among stock treated with the single vaccine, even of the original make, amounts to about one-third of 1 per cent, that is to say one animal out of every 300 vaccinated will fail to be sufficiently immunized. These results would be better if the use of the single vaccine was restricted to common stock, but it often happens that in order to save a little trouble a cattle man will use the single vaccine upon highly graded or even pure-bred stock; whereas in order to obtain the best results, represented by a mortality of only one-tenth of 1 per cent, he should give the double treatment to such animals.

The foregoing results with the double

THE QUICKEST CALF GROWER!

MECHANICSBURG, OHIO.

GENTS:—I feed my cattle and calves "International Stock Food" summer, and also in the winter, when it brings them out in good shape, so they get the full advantage of early spring pasture, and none of them have ever had the scours, which is so common at that time. My milk cows are giving more milk, winter and summer, since I commenced feeding "International Stock Food," and the butter is of better quality. I tested "International Stock Food" on a steer that had made no growth for a year. After feeding "International Stock Food" one month he had made a net gain of 125 lbs. His rations were corn fodder and "International Stock Food." As a special test I fed and raised one calf on skim milk and "International Stock Food" during the winter and secured a weight of 450 lbs. in the spring. C. S. MITCHELL.

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A Safe, Speedy, and Positive Cure

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

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The Original Hog Dip.

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Kills lice and fever germs, removes worms, cures mange, canker and cough; aids digestion, promotes healthy growth, and

Prevents Disease, at Small Cost.

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NATURE'S WONDERFUL HEALING SALVE.

CURES SORE SHOULDERS, COLLAR GALLS, SCRATCHES, CRACKED HEELS, SITSFASTS, CHAFES, ROPE BURNS, WIRE CUTS, SORE TEATS, OLD STANDING SORES AND ALL FLESH WOUNDS ON

MAN OR BEAST

25 and 50 Cents

SEND 4c FOR TRIAL SIZE TO

S. H. DeHuy, P. O. STATION A, DENVER, COLORADO.

ENDORSED BY HORSEMEN EVERYWHERE

Sunny Slope Farm.

Emporia, Kans., July 19, 1900.

Dr. B. H. DeHuy, Denver, Colo.

My Dear Sir:—I have used two boxes of your Balmoline on my horses for sore shoulders and sore necks and must say that I find it a very satisfactory remedy. It has healed them faster than any remedy I have ever used. At the same time we were working our horses all the time. Yours truly, C. A. STANNARD.

vaccine and single vaccine, respectively, for blackleg, hold good with the powder form of vaccine devised by Arloing, Cornevin, and Thomas, and still made by Arloing, as well as with the cord form of vaccine, generally called "Blacklegine," devised and made by Thomas. It is admitted on all hands that vaccination for blackleg with the original vaccine is a great success, as evidenced by the vaccination of about 20,000,000 head during eighteen years, and a reduction of mortality of from 10 per cent to an average of one-fifth of 1 per cent.

In conclusion I would say that pre-

ventive vaccination for both anthrax and blackleg is universally conceded to be successful, and is practiced on an increasing scale every year. Although the vaccination of live stock has been employed in Europe for over ten years, yet it was unknown in this country when I introduced the system in the early part of 1895, but at the present time the vaccination of animals is as well known among live-stock people as the vaccination of human beings against smallpox is known among the public generally. HAROLD SORBY.

Chicago, Ill.
[It is fair to state that the complaints of bad results from the use of vaccine do not relate to the makes mentioned by Mr. Sorby.—EDITOR.]

"Nerving" for Blackleg.

I saw some time ago that you asked for experience with vaccination for blackleg. Last spring after losing two calves I vaccinated five against the advice of some of my neighbors. Ten days after vaccination I lost two more. Then I took a neighbor's advice and nerved the rest. Two were affected with the disease as symptoms showed for they were lying around and the blood was black and would hardly run, but I saved them. Quite a lot of losses were stopped in this neighborhood by nerving after vaccination failed. Nerving has been practiced in this neck of woods for some ten years and all claim it a sure cure. As I never saw anything about nerving in a paper I will try and give you a description of the process. Throw and hog-tie the calf, then with a sharp knife cut a slit two inches long just above where the hoofs branch in front. One vein branches out right below the lower joint, one branch running in each hoof. Take a button hook and pull up the vein and cut in two. Some take the bigger vein that lies a little deeper and cut it, which will bleed a little more than the two small ones but in ten minutes the bleeding will stop. Last year one of my neighbors showed me how to nerve, and after he had two feet nerved I stopped him as I thought it was too cruel, but I had to acknowledge this year that it is a sure cure for blackleg.

JOHN C. BRAUN.

Perth, Sumner County.

Mr. Braun will confer a favor on his fellow stockmen if he will state what kind of vaccine he used.

The Veterinarian.

We cordially invite our readers to consult us whenever they desire any information in regard to sick or lame animals, and thus assist us in making this department one of the interesting features of the Kansas Farmer. Give age, color, and sex of animal, stating symptoms accurately, of how long standing, and what treatment, if any, has been resorted to. All replies through this column are free. In order to receive a prompt reply, all letters for this department should give the inquirer's postoffice, should be signed with his full name, and should be addressed to the Veterinary Department, Kansas Farmer, Topeka, Kans.

- (1) An Abscess.—I have a steer which has a lump on the side of his neck just back of the jaw. When I first saw it, it was soft except in a small place on the front side next to the jaw. It had about a quart of thin corruption in it which smelled very bad. Can you tell what it is and give remedy for?
 - (2) Is lumpy-jaw contagious?
 - (3) Are cattle fit for beef which have it?
 - (4) Does lumpy-jaw keep breaking and running, or does it stay hard?
- Derby, Sedgewick County. F. E. C.
- Answer.—(1) Open up freely and wash out well with carbolic acid one to twenty of water. Repeat in two days.
- (2) Yes.
 - (3) Yes, some are.
 - (4) They usually break and run.

Actinomycosis (Lumpy-jaw).—I have a 4-year-old bull of good blood who has great difficulty in breathing. He had a scar on his jaw when I bought him over one year ago and during last summer a lump formed on his jaw near the old scar which broke and ran some. I had a veterinarian cut it out last fall. It healed up and I see nothing more of the lump but this spring he seemed to have trouble in breathing at times and has gradually become worse until he can hardly breathe at all. We can hear him breathe over two hundred yards away, and he can only breathe with his

tongue out. In fact he almost goes down at times and he seems to produce too much saliva and has a discharge from the nose. Please let me know through your paper what I can do for him.

Answer.—It is the same disease that he has had before only it is on the inside of the glands and pressing on the larynx. Open up on the outside and inject peroxide of hydrogen. Afterwards inject tincture of iodine. Repeat in two days. Give two drams of iodide of potassium in a pint of water once a day for two weeks.

The Canadian Northwest.

Our readers know something of the overflow of settlers in Minnesota and North Dakota and going across the boundary line into the Canadian Northwest and we wonder if they are fully aware of the dimensions it has already assumed. The country in question is so vast that the 20,000 or more Americans already over there just about make a beginning.

The four provinces known as the Canadian Northwest cover a greater area than Wisconsin, Minnesota and the Dakotas combined and yet altogether they have scarcely more than the population of the Twin Cities in Minnesota.

The common idea about that country is that it has a very cold climate and a scanty soil which idea is not borne out when the facts are known. That impression of barrenness and arctic weather generally existed among the membership of a large party invited by Col. A. D. Davidson of Duluth to visit that region as his guests. Colonel Davidson is president of a company which recently bought a million or two of acres in the province of Saskatchewan and he took this method of letting his friends know that his judgment was good in making the investment, his friends who were invited to go filled nine sleeping cars and the entire trip of over two thousand miles from St. Paul to Prince Albert was made on a special run. The train left St. Paul, June 25th, passing through Winnipeg the next day and reached Prince Albert Friday night. The whole trip was a succession of surprises, it was found that the land as far as the crops appeared was equal in fertility to the famous Red River Valley and that the climatic conditions were not unlike those of northern Minnesota and North Dakota.

Horses and cattle sell at prices as high as in the United States while the price of grain crops would average about as in North Dakota and northern Minnesota. The fact that lumber is selling in Saskatchewan valley at a less price than in the great lumber State of Minnesota is evidence of the fact that the country is not altogether a wide prairie. Nearness to the vast mountain systems of British Columbia accounts for a more uniform and moderate winter climate than in the United States directly south of the boundary. Moreover the existence of large forests and vast deposits of coal settles the fuel question.

Farmer Aristocrats.

What do our Kansas farmers think of this?

"Tales of sudden wealth are quite common in the famous Kansas and Oklahoma wheat belt, fine houses, modern in every appointment, are the rule; rubber-tired buggies and automobiles are nothing to attract attention. In certain communities even the farmer has grown metropolitan to the extent of building an opera house on a school lot and securing some of the best attractions in the theatrical line. It was not until the present winter that Wichita could afford a guarantee for certain notable singers. Among those occupying front seats were well-known wheat-growers. Farmers' daughters and farmers' sons form a goodly part of the Kansas society element, while piano salesmen look to them for their quick deals. It is nothing uncommon for a farmer to come to town and buy two or three rubber-tired buggies, or even place an order for an automobile. Mr. D. W. Blaine, a rich farmer of Pratt County, superintends all his harvesting in an automobile. Many others are equally plutocratic.

"One of the richest farmers in the Kansas wheat belt is John T. Stewart, who came to the State five years ago. He borrowed \$50 from a friend, rented a quarter section of land in Sumner County and began work. To-day he is worth two million dollars and his income from wheat in 1901 was \$64,000. He is known as the wheat king of Kansas. There are twenty-three millionaires in Kansas, fifteen of whom are farmers living on farms and running them as an investment. Perhaps they have not all of their fortune invested in land, but a goodly portion of it is. Solomon Besley, of Wellington, placed \$31,000 in wheat land last year and realized 30 per cent on his investment, or ten times as much as he receives from money loaned in Illinois."—W. R. Draper, in Ainslee's Magazine.

The National Shorthorn Shows.

The Kansas Farmer is in receipt of a handsome catalogue giving rules, classifications and premiums and announcements for the three National Shorthorn Shows for 1902 to be held at Hamline, Minn., Sept. 1-6; Kansas City, Mo., Oct. 20-25, and Chicago, Ill., Dec. 1-6. The changes in the show ring have already been mentioned in the Kansas Farmer. The association will offer a special prize of \$500 for the grand champion steer if he be a Shorthorn and \$1,000 to the grand champion carload of steers if won by Shorthorns, either pure-breds or grades. The introduction to this catalogue fairly glows with the pride which is felt by the Association and the individual breeders of Shorthorns, over the record made last year. Since the last catalogue was issued, four great national shows have been held with the result that the breed is now stronger in popular favor than ever in its history. It is stated that the past record of this breed in making higher prices than any other breed has been well maintained and \$30,000 for thirty-eight head at public treaty and \$4,750 for 115 head at public sale are quoted as facts to sustain this claim. The promise for the Shorthorn exhibit at the American Royal in October is

simply magnificent and breeders in this section of the country, which is rapidly coming to be recognized as the very storm center of the industry, are now fitting animals of such quality and in such numbers as was never seen before.

The Burleigh-Fallor Polled Durham Sale.

The combination sale of Polled Durham cattle held by A. E. Burleigh of Knox City, Mo., and F. F. Fallor, Newton, Ia., at South Omaha, on June 26, was attended by a fair-sized crowd. Corn plowing and harvest interfered with the attendance but the sale as a whole was considered a fair one. Forty-six head of cattle, both Polled Durham and Shorthorns, were sold which brought \$6,495, average \$141.20. Thirty-two of these animals were cows and heifers which brought \$4,720, average \$147.50. The fourteen bulls brought \$1,775, average \$126.78. The top of the sale was brought by Burleigh's herd bull Bonnie Bell's Prince, which sold for \$340. The top of the cow sale was Burleigh's Rose Mary, which brought \$300. The purchasers in this sale were as follows: E. R. Straub, Avoca, Neb.; A. H. Mattson, Loomis, Neb.; John Schulz, Yutan, Neb.; T. B. Nickerson, Garden City, Minn.; Otto Skosholm, Council Bluffs, Ia.; J. W. Robinson, Harlin, Ia.; G. W. King & Son, Waterloo, Ia.; John Nohenberg, Blair, Neb.; John M. Frazer, F. Crook, Neb.; N. Cook, Kennard, Neb.; C. A. Gall, Tekamah, Neb.; G. P. Cunnell, Tekamah, Neb.; R. J. McCormick, Elk Horn, Neb.; H. T. Weise, Kennard, Neb.; Alb. Stenger, Columbus, Neb.; C. I. Burleigh, Mazon, Ill.; C. Atherton, Mazon, Ill.; C. P. Anderson, Alta, Ia.; C. P. Nickerson, Alta, Ia.; F. B. Nickerson, Garden City, Minn.; J. Q. Briggs, Houston, Minn.; H. B. Cavanaugh, Neola, Ia.; Straub Bros., Avoca, Neb.; E. H. Upjohn, La Platte, Neb.; T. J. Walters, Trenton, Neb.

Stock Judging.

In this time of unparalleled prosperity of the live-stock interests and consequent prosperity of all classes, a great and general interest has been awakened in the subject of stock judging. Pure-bred stock has been so perfected and the competition between breeders is so keen that the beginner realizes that one of the first essentials to success in breeding is the ability to properly judge live stock. The best way to secure this ability is from actual experience coupled with well-selected and instructive reading matter along this line. This reading matter is best furnished by the Kansas Farmer which will contain full reports of all of the prominent live-stock expositions and fairs to be held in the West during the season which opens early in August. Next to attending these shows in person the best thing that can be done for self-education and advancement is to read the Kansas Farmer and filed its numbers which will contain these comprehensive reports of the State fairs, the American Royal and International Live Stock Shows and of very many of the important county fairs in the Kansas City territory. Get your friends into line for the fall campaign so that they may receive the Kansas Farmer reports of the farmers' institutes and fairs.

Importation of Red Polled Cattle.

The last issue of the London Live Stock Journal says: "Mr. S. A. Converse of Cresco, Iowa, U. S. A., who is one of the largest holders of Red Polled cattle in America, is just now landing at New York an important shipment of the stock selected by him and Mr. Herbert Blofield of Quidenham, Norfolk. From Mr. Blofield's purchases at Mr. J. E. Platt's sale there are the famous cows Brinilda 3377 and Delia 12190, together with the heifer Sweet Dorena 17723. Delia dropped a cow calf to Red Knight before the stock left Quidenham, and that has gone with its dam. From Lord Amherst's herd at Didlington there has gone the yearling bull Cassenollette 9331 by Caspar, dam Wax Doll 3d 9899. Mr. John Hammond of Bale supplied seven cows and heifers of his well-known Davy family—namely, the 160th, 191st, 192d, 205th, 207th, 210th and 213th; while Davy 160th has a bull calf at foot by Handy Man. Mr. Horace W. Packard of Shotley supplied the young cows Doris 7th-P9 14839, Butterfly-P2 16289 and Carnival-B4 16297. Mr. Blofield's herd has supplied Fancy-K25 14913, Fancy 16612, Pearl-K25 15584, Winnie-2 Suff. 16068, and Mr. A. J. Smith's herd at Rendlesham Comely Vesper-B11 14709."

Gossip About Stock.

We call attention to the new breeder's card of H. C. Riggs of Wetmore, Nemaha County, Kansas, on page 725. He breeds the popular strains of registered Duroc-Jersey swine. For present sale he has a number of fair gilts, pigs of both sexes spring farrow.

On the government farm at Fort Leavenworth, Kans., 190 acres of wheat which has just been threshed yielded 5,090 bushels, or 27 bushels to the acre. The entire crop was hauled to a Leavenworth mill and exchanged for flour which was taken to the federal prison. The farm consists

EPIDEMICS

—controlled by—

Mulford's Vaccines

Charbon Vaccine prevents Charbon. Black-leg Vaccine prevents Black-leg. Serum for Distemper prevents Distemper or Shipping Fever.

Pneumonia Antitoxin prevents and cures Pneumonia.

Tetanus Antitoxin prevents and cures Tetanus or Lockjaw.

Tuberculin and Mallein detect Tuberculosis and Glanders.

Price of Charbon or Anthrax Vaccine, \$2 per tube of 10 complete doses (two injections each) for cattle, horses and mules.

Black-leg Vaccine, sufficient for from 10 to 20 cattle, \$1.25; for 20 to 40 cattle, \$2.25.

Write for our

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It contains valuable information to every breeder and dairyman.

H. K. MULFORD COMPANY

Thirteenth and Pine Sts., Philadelphia
74 Wabash Ave., Chicago

of 600 acres and will yield large crops of corn and potatoes.

Fred Cowley, of Columbus, Kans., the well-known breeder of high-class Shorthorns, also a member of the Kansas Live Stock Sanitary Commission, said to a Kansas Farmer representative that he had a few very choice Shorthorn bulls which he wished to close out at once and that any enterprising buyer who would order now could have them at a very low price. Write him for particulars.

In view of the forthcoming events of interest to all breeders of Berkshire swine including the National Breeders' Show at Kansas City, Oct. 20-25, 1902, and the various auction sales throughout the country, it is important that breeders who feel an interest in this matter and who desire all of the details pertaining to the same should write at once to Col. Charles S. Mills, secretary, Springfield, Ill.

At the first meeting of the board of directors of the American Hereford Breeders' Association, held after the removal of headquarters to Chicago every member of the board was present. In addition to the national shows at Chicago, Kansas City, and Hamline, Minn., at which more than \$6,000 in cash will be distributed as premiums, the association has now made an appropriation aggregating \$6,400 to be distributed among exhibitors at seventeen State fairs and fat-stock shows this fall.

Every stock-owner should make it a point to become familiar with Gombault's Caustic Balsam. It is a safe and reliable veterinary remedy which is being advertised regularly in the Kansas Farmer on page 715. It is successfully used for sprain, ring bone, splint, curb, sprains, side bone, wire cuts, lameness, distemper, poll evil, wind galls, fistula, capped hock, thrush, scratches, founder, capped heel, thrush, collar boils, and grease heel. Write them for particulars and ask for their album of famous horses.

Mr. J. F. Hodges, Worthington, Ind., writes as follows: "I have bought an Improved Dewey Stock Waterer of Chas. Roth, of this place. I am glad to say I am more than pleased with it. Do not hesitate to recommend it to all who need such an article. It is the most perfect device for watering hogs that I ever saw and is easily attached to a water-tank or barrel." The Improved Dewey Stock Waterer is manufactured by the B-B Manufacturing Co., Davenport, Iowa, whose advertising card appears on page 726.

A report comes that horse thieves are getting exceedingly bold in Brown County, especially in the vicinity of Hiawatha. H. Story lost two head, Albert Smith one, J. M. Meredith one, and Frederick Schmitt two, while a spring-wagon and several sets of harness were taken from the same neighborhood at the same time. During the hard work and long hours of the harvest season the farmers sleep soundly and the thieves have little difficulty in running off the horses across the Nebraska line where it is reported that the sheriff of Richardson County is kept constantly busy searching for horse thieves. We recommend that these people in Brown County

3,000 ANGORAS AT AUCTION.

Commencing promptly at 10 o'clock at Stock Yards Sheep Division No. 2.

KANSAS CITY, MO., THURSDAY, JULY 17

This offering consists of fifteen hundred recorded and high-class does, and fifteen hundred yearlings, 2 and 3-year-old wethers for bush cleaning purposes. Contributors to this sale are W. G. Hughes, J. J. Gentry, L. S. Friday, W. G. Perkins, Ed. Amer, W. H. Woodlief and W. T. McIntire. Parties wanting recorded and high-class does or brush cleaners would do well to attend this sale, as they will be sold for the high dollar without reserve. For particulars address,

W. T. MCINTIRE, Manager.

Live Stock Exchange, KANSAS CITY, MO.

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CANDY CATHARTIC

BEST FOR THE BOWELS

Genuine stamped C C C. Never sold in bulk. Beware of the dealer who tries to sell "something just as good."

place themselves at once in communication with John W. Wall, secretary of the Anti-Horse Thief Association, R. R. No. 2, Parsons, Kans., where they can learn something for their immediate and future benefit.

The little town of Hereford, Texas, has gained the distinction this spring of having the largest single delivery of cattle in one brand ever made to one purchaser in the Pan Handle country. It has the added distinction of being able to number 2,000 Hereford cattle which are nearly all the descendants of Ancient Briton, the World's Fair Champion of 1893 while in this shipment perhaps the greatest claim to distinction lies in the fact that a total of 45,900 cattle have been shipped from this one station this spring to find homes on the Northern ranges.

Again Galloways score a victory. Last week a bunch of fourteen 2-year-old grade Galloway steers bred and fed by J. M. Rhodes, Frankfort, Kans., brought the highest price ever paid for beef cattle on the Kansas City market. These steers average 1,286 pounds and sold for \$8.35 a hundred. They had been on feed since October and their rations consisted of shelled corn, abundance of roughage, and about four pounds each of cottonseed-meal. Mr. Rhodes seems to have a kind of a habit of getting near the top with his Galloways and has retained two or three carloads at home with which to top the market a little later on.

Following the example set by the Marshall County Hereford Breeders' Association of Kansas the Hereford breeders of La Salle County, Illinois, met at Bailey's Falls on June 13 last and organized a county association to advance the interests of the "whitefaces." After some discussion as to the limits of the association it was decided to restrict membership to La Salle County, with a provision which will admit associate or honorary members from elsewhere. Realizing the importance of this movement the citizens of La Salle at once extended a cordial invitation to the association to make an exhibition of Herefords in connection with the street fair. The pioneer breeder of the county, Mr. Wallace Libbey, was elected president and C. M. Watts of Ottawa, secretary.

The difficulty in securing labor, together with the high price of corn, have resulted in a very marked decrease in the broom-corn acreage. The principal broom-corn-growing districts are embraced in Kansas, Oklahoma, Missouri, and a part of Illinois, where the acreage as compared with last year is about 40 per cent less. It is now stated that this large shortage has been known to a few of the heavy buyers for about a week and that during that time they have devoted their energies to picking up all of the good corn that still remains in the hands of the farmers. Over 700 tons have been shipped during the last week out of this district and this heavy buying has served to increase the price from \$10 to \$20 per ton, over its former value. It is also stated that the National Broom Mfg. Co. held a recent meeting in Chicago at which it was decided to advance the price of brooms 50 cents per dozen.

Mr. H. W. Cheney, assistant secretary of the Kansas Improved Live Stock Association and the owner of the Shady Brook Stock Farm, North Topeka, Kans., dropped into the office the other day and announced that he was having a good trade in Poland-Chinas, though he is reserving a large share of his herd for the fall shows and sale. Among some of the best things that he has lately disposed of was a bred sow to J. B. Jennings, Jennings, Kans.; a boar to D. R. Kronham, Beverly, Kans.; and a boar to Tyra Montgomery, Larned, Kans., all of which were sired by Missouri's Black Chief 2d 28851; also a sow pig and two boars to Martin Kistner, Stuttgart, Kans.; a boar pig to M. Nugent, Stuttgart, Kans.; and one boar and two sows to J. W. Thompson, Tascott, Kans., all sired by Perfect Model 26850. We congratulate these gentlemen on securing this quality of stock for their herds.

There is a call now in South America for good breeding stock from this country, because England has been shut out on account of the foot and mouth disease. This is where Argentine gets even. In the first place England put up the fence against Argentine to keep the disease away from her herds, but this was after a good many cases had broken out. Both countries then commenced drastic measures to eradicate the trouble, and Argentine seems to have succeeded even better than England. Efforts have been repeatedly made by the South American republic to reestablish her trade with England, but so far without success. During the last year Argentine has been buying a good many breeding cattle from the old country, but recent outbreaks among English herds have resulted in completely suspending all live-stock trade relations between the two countries. For this reason there is now an opening for our breeders which they should take advantage of without delay.

Swine-raisers should be interested in the new preparation announced in this issue by Fleming Bros., of the Union Stock

Yards, Chicago. This firm is so well-known to stockmen everywhere, and has so long enjoyed the confidence and patronage of the public that the merit and success of anything they offer is assured. Fleming's Swine Food is a unique preparation, there is nothing on the market like it, and nothing else made to do what it intends to do. We are quite sure that all those who raise hogs, especially those who have experienced frequent disappointment and loss in the business, will be interested in the instructive pamphlet which Fleming Bros. have published. It throws considerable light on some unsatisfactory phases of the hog problem, and as it is free it should be sent for before the matter is forgotten. We understand that the earliest inquiries from each locality will receive a special and somewhat surprising offer from Fleming Bros. See their advertisement elsewhere.

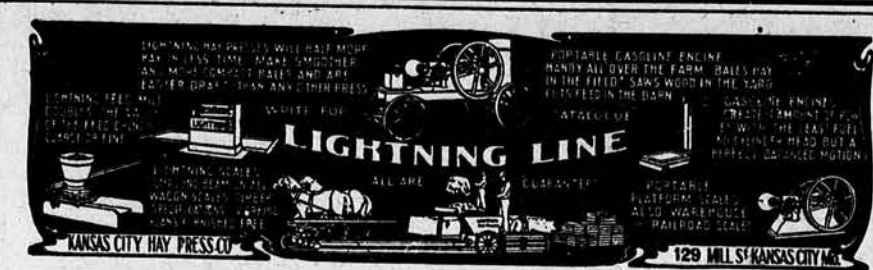
Mr. W. T. McIntire, the indefatigable secretary of the Angora Goat Association, announces a sale of 3,000 Angora goats to be held at the Kansas City Stock Yards on Thursday, July 17. Those who attended the last sale were pleased as to the quality of the goats offered but disappointed as to the number. Many of them going away without being able to purchase. Mr. McIntire states that this consignment of goats will be the best in quality that has yet been offered, and that it will consist of 1,500 recorded and high-class does and about the same number of 1-, 2-, and 3-year-old wethers, suitable for brush cleaning. Among the contributors to this sale is Mrs. Armer of Sierra County, Texas, who won the distinction, at the time of the American Royal last fall, of having purchased the highest priced buck, for which she paid \$1,050. We mention this as an index of the quality of stock which will be offered in this sale.

Col. Jas. W. Sparks, of Marshal, Mo., now stands up at the head of his profession as a live-stock auctioneer. He has held sales during the past season from Minnesota to Texas and from Colorado to Maryland and he has now booked sales to fill out the balance of this year and a number which take him well into 1903. If any one were to ask how Colonel Sparks has won his very pronounced success in his profession we think every one who knows him would answer "by being a gentleman." In addition to this he is also a careful student of individual merit of animals and is thoroughly posted on pedigrees. One of the evidences of success in any line of business may be found in its satisfied customers and these Colonel Sparks has by the hundreds. Colonel Sparks may have a few days that are not engaged as sale dates and any one needing the services of one of the best men in the profession will have to correspond with him immediately.

The Holstein-Friesian breed of dairy cattle seems to be coming to the front in the West and it will doubtless be of interest to those who are partial to this breed to know that the Holstein-Friesian Association of America, at its last annual meeting, appropriated \$1,000 to be given as premiums for a thirty-day official butter test. The conditions of this test were the same as had been formerly made for the seven-day tests. This contest was won by Belle Moore Zante 52126. Her age at the time of the contest was 3 years, 4 months, and 28 days. The test was begun nine days after calving, with the result that she gave 1,560 pounds of milk; butter fat 54.827 pounds, equivalent butter 80 per cent fat sixty-eight pounds eight and five-tenths ounces, or sixty-three pounds fifteen and four-tenths ounces of 85.7 butter fat. The full records of this test are furnished by S. Hoxie, superintendent of advanced registry, Yorkville, N. Y.

Frank W. Bicknell, special agent and explorer of the Agricultural Department, writing from Buenos Ayres to the bureau of animal industry, says that if it is possible for some of the breeders of the United States to send some first-class animals to that place now is a good time to do so, as British cattle have been barred owing to an outbreak of foot and mouth disease in England. The cattle must arrive in Buenos Ayres not later than August 1, so as to have time to get in condition before the opening of the great annual show of the Rural Society, which begins in Buenos Ayres September 14 and lasts five days. This show brings out the best animals in the country and is for pure-bred stock only. At this time all the best sales of the year are made, both on the show-grounds and in the large auction house in the city. Representatives of some of the principal houses there say a few good animals from the United States may be sold, but it is useless to send anything but the best.

A daily stock paper states that there is now no question but that sheep men of the West intend to dispose of a large share of their holdings this year. There are two principal reasons for this, one is that the ranges are now too heavily stocked and the other lies in the vexed questions concerning the removal of fences from government lands. The time is fast approaching when both the cattle and sheep business will have to be radically changed, and the



only solution lies in intensive, rather than extensive, farming. It will become necessary for breeders and growers of stock to own their land or lease it for a term of years. This of course will necessitate a limiting of the area which can only be offset by the raising of suitable crops to take the place of the abandoned ranges. Alfalfa more than any single crop will solve this problem. When one stops to think that a sure crop of five tons or more per acre of better feed than the range can give at its best is produced by the alfalfa plant, it will be seen at once that this crop alone will prove the salvation of the big ranchman, as well as of the small farmer.

One of the things which causes greatest pain to the average resident of the greatest State in the Union is to see the constant attempts which are being made by journals of different classes in the East to misrepresent this State by any and every means at their disposal. They seem to be entirely oblivious of the fact that Kansas raises more wheat, more corn, more and better live stock, than any half dozen of the little Eastern States and has money enough in its banks to buy out any one of them. In the attempts to be funny at the expense of Kansas and to be sensational regardless of facts they entirely forget they satisfaction with which they sit down to a dinner composed of Kansas grown beef, Kansas made butter, Kansas raised wheat, and Kansas eggs and vegetables and go after us in the following manner which comes from an otherwise respectable Chicago live-stock paper: "Cold weather out in Kansas has driven many rattlesnakes into the towns and villages. These reptiles have become so numerous in places that the people have had to organize into a committee of extermination for self-protection. If it isn't one thing it is another in Kansas, and mostly another." What rubbish.

Will H. Rhodes, Tampa, Kans., is an old Agricultural College boy who is on to his job as a breeder of Large English Berkshire hogs. On February 14 last, at the Kansas City live stock pavilion, was held a sale under the management of the American Berkshire Association, in which Mr. Rhodes was the purchaser of the highest priced hog ever sold in Kansas City. This was Imp. Elma Lady 4th 44683 by Minting 33707 out of Handsome Lady 37027 and she was described as one of the grandest sows of the breed. She has a well-dished face, fine back, ham and bones, is very thick and large with a great head. She has an exceptionally fine reputation as a brood sow and cost Mr. Rhodes at this sale \$150 when the average of the sale for seventy-eight head was only \$25.83. She is mentioned here especially in order to convey an idea of the quality of stock that Mr. Rhodes buys when he needs to make a purchase. His herd is now headed by Premier 4th 55577 assisted by Rutger Judge 7th 61106. Mr. Rhodes is a thoroughly intelligent breeder who is perfectly reliable and who is a gentleman always. It will pay to watch this herd if you want the best there is to be had.

The figures shown by the market reports from Kansas City contain some surprising facts. The decrease in hog receipts is the most astonishing of all and amounts to 730,000 head as compared with last year. This is a decrease of 37 per cent in numbers, while the difference in average weight is equivalent to an additional 6 per cent, or a total shortage of 43 per cent of the gross weight of hogs received. And this is for the first six months of 1902 as compared with a like period for 1901. Opinions by conservative men place the July shortage as probably greater than any other month of the year and they prophesy that the ensuing six months will show as great a loss as does the six months ending June 30. During this same period the average weight of all the hogs received at Kansas City has been 187 pounds, while the first six months of 1901 showed an average of 208 pounds. This means a loss of 21 per cent in average weight. While this great decrease of 43 per cent has been a remarkable one, it has not resulted in serious loss on account of the high prices that have prevailed. It serves, however, to emphasize the fact that there is a great shortage of hogs in the Kansas City territory and that the breeders will have a record-breaking market for their produce this fall.

There are no keener business men in the West than the live-stock agents of the great railway companies and what they say in earnest about the live-stock conditions will be found to pretty thoroughly

represent the facts in the case. Conversation with and reports from a number of them all tell the same story, which is that in their investigating trips they have found conditions such that they predict an abnormal demand for feeding cattle and hogs this fall and they always add that "these fellows always want the good ones." Poor cattle, like poor hogs, will be a drug on the hands of those who are unfortunate enough to own them while the owners of good ones will be near the top in any of the markets. It has been demonstrated this year as never before that it does not pay to sell registered runts at Kansas City stock-yards' auction sales. In every instance where a sale of poor animals has been held at Kansas City, it was noticeable that no length of pedigree, no amount of fashion in breeding would ever serve to sell animals lacking in individual merit. Breeders who are unfortunate enough to have scrubs, knot-heads, and runts in their herds had better beef them at once or else dispose of them at farm sales. Some of them really should never be named in the herd-book but when they are they should never be included in a sale at Kansas City or other large breeding centers.

One of the most curious of all the criticisms of the methods of experiment stations that we have ever heard comes to us as a result of the feeding experiments conducted by the Iowa Experiment Station at Odebolt. This criticism comes from a very prominent stock-food company and is to the effect that the experiment station cattle are generally too well cared for for them to obtain the most satisfactory results from the use of their food. This simply means that the more pronounced and apparent results will of course be obtained by the use of this excellent stock food in the feeding of cattle that are in poor condition. It also means that the poorer the condition of the cattle the more distinct will be the results obtained from the use of this food but it does not mean that excellent results are not always forthcoming from its use with well-fed and well-kept cattle. In the Odebolt experiment 220 head of cattle were divided into eleven lots and the results show that the International Stock Food Company, of Minneapolis, Minn., came off with flying colors, their only criticism being that if the cattle had been a poorer lot they could have shown more pronounced results. They manufacture their stock food for the use of farmers and there is where they obtain their best results but they fear no competition, even among the well-fed and well-bred cattle under the charge of the best-equipped feeding experimenters.

Mr. C. S. Nevius, Childs, Kans., writes that his show herd of Poland-China hogs, which he is preparing for the fall fairs and exposition is feeding well and is going to be in great shape when he starts on the circuit. He thinks now that he can show twenty-five or thirty brood sows that are bred for fall litters and that can not be excelled by any one. He is a great hand to breed for size and bone and at the same time retain the finish which is so much prized by all breeders. Mr. Nevius started with a foundation stock that was sired by J. H. Sanders, Jr., and Upright Wilkes. Following them came Klever's Model 18166, Moorish Shortstop 23570 by Tecumseh Shortstop 14750; Glenwood Chief 23669 by J. R.'s Tecumseh 18147; Glenwood Chief Again 24906 by W's Chief Again 22483, whose sire was bred by P. L. Ware & Son and is now at the head of the herd. Glenwood Chief Again is the sire of the fall gilts and boars and a large share of this season's crop of pigs. The last three boars named were first-prize winners at the Lynn County fair each year. They have now some good sows that are worthy of note. Glenwood Queen Again tracing to Old Hidesetter and Cora Shortstop by Tecumseh Shortstop and some others by Walt's Black Stop Chief. This herd has long been noted for its blood line but its special merit is in size of bone and finish. They have a new herd boar now in Glenwood Chief Faultless 27815, which is a show hog and was bred by Wm. F. Corkhill, Media, Kans. His sire was Black Van 2d 25404 and his dam by Chief Faithful. If you want to deal with an honest man and get some good hogs of the best blood line and individual merit, try C. S. Nevius. It always pays.

Any of our old subscribers who wish to secure our Dollar Wall Atlas and at the same time extend their paid subscription one year can do so by sending us \$1.25 and the new Wall Atlas will be sent at once post-paid.

In response to inquiries as well as for its real value we publish herewith detailed information in regard to the three highest-priced bulls and cows of the three older beef breeds in America. These facts are taken from the Breeder's Gazette of Chicago and are well worth preservation.

SHORTHORNS.									
Name of animal.	Sold by—	Sold to—	Date of sale.	Age at sale.	Place of sale.	Price.	Sex.		
Duke of Connaught.....	Earl Dunmore.....	Lord Fitzhardinge.....	Aug. 25, 1875.....	2 years.....	Dunmore, Scotland.....	\$26,904	Bull.		
14th Duke of Thorndale.....	Geo. M. Bedford.....	Levi Goff.....	Aug. 10, 1876.....	8 years.....	Paris, Ky.....	17,900	Bull.		
2d Duke of Onelda.....	Walcott & Campbell.....	T. J. Megibben.....	Sept. 10, 1873.....	3 years.....	New York Mills.....	12,000	Bull.		
8th Duchess of Geneva.....	Walcott & Campbell.....	R. Pavin Davies.....	Sept. 10, 1873.....	7 years.....	New York Mills.....	40,600	Cow.		
16th Duchess of Geneva.....	Walcott & Campbell.....	Earl Bective.....	Sept. 10, 1873.....	7 years.....	New York Mills.....	35,000	Cow.		
1st Duchess of Onelda.....	Walcott & Campbell.....	Lord Skelmersdale.....	Sept. 10, 1873.....	2 years.....	New York Mills.....	30,600	Cow.		
HEREFORDS.									
Perfection.....	Thomas Clark.....	G. H. Hoxie.....	Jan. 7, 1902.....	3 years.....	Chicago.....	\$ 9,000	Bull.		
Dale.....	F. A. Nave.....	Clem Graves.....	Apr. 17, 1900.....	4 years.....	Chicago.....	7,500	Bull.		
Thicket.....	T. F. B. Sotham.....	William Humphrey.....	Feb. 28, 1900.....	4 years.....	Kansas City.....	5,100	Bull.		
Dolly 2d.....	John Hooker.....	N. W. Bowen.....	May 22, 1901.....	8 years.....	Chicago.....	5,000	Cow.		
Betty 2d.....	O. Harris.....	J. C. Adams.....	Dec. 5, 1901.....	4 years.....	Chicago.....	4,500	Cow.		
Carnation.....	Clem Graves.....	J. C. Adams.....	Jan. 25, 1901.....	3 years.....	Kansas City.....	3,700	Cow.		
ABERDEEN-ANGUS.									
Prince Ito.....	M. A. Judy.....	B. R. Pierce & Son.....	Feb. 5, 1902.....	6 years.....	Chicago.....	\$ 9,100	Bull.		
Gay Lad.....	J. Evans Jr. & Son.....	Thomas Mattison Jr.....	Mar. 9, 1899.....	5 years.....	South Omaha.....	3,050	Bull.		
Black Knight of Estill 9th.....	Wallace Estill.....	W. B. Seeley.....	Mar. 22, 1900.....	10 months.....	Chicago.....	2,100	Bull.		
Blackcap Judy.....	M. A. Judy.....	C. H. Gardner.....	Feb. 4, 1902.....	1 year.....	Chicago.....	6,800	Cow.		
Blackbird Wellington 2d.....	Baker & Smith.....	Cantine Bros. & Stephenson.....	Apr. 29, 1902.....	6 years.....	South Omaha.....	2,010	Cow.		
Lucia Estill.....	Wallace Estill.....	W. A. McHenry.....	Mar. 22, 1900.....	5 years.....	Chicago.....	2,900	Cow.		

The Young Folks.

Conducted by Ruth Cowgill.

THE FARMER BOY.

Written for the Kansas Farmer.

The farmer boy's the queerest wonder
Of living things that ever ponder;
He makes them think he's the biped king,
Of brutes that walk or of birds that sing.
For his noisy mouth is never still,
And he has so many tasks to fill,
That it keeps him busy all the day,
To help forget some holiday play.

There is no time that he loves so well
As the springtime; why, he can not tell.
But then is the time his joys are most,
Of what he can do and what he knows—
Vacations come and he has no woes.
He feels so great that no living thing,
Can near equal him, on feet or wing.

He can tell you where the rabbits play,
Or he knows just where the ground squirrels stay.
He can rob the birds' nests in the trees—
But he can not rob the bumblebees.
"But they're worthless things," he thus declares,
"And they are too small to catch in snares."
Such foolish things, so he lets them be.
The are too much trifle for such as he.

He strolls to the brook some fine June day,
His face is tan, and his heart is gay.
While crossing the road, meets a passerby,
With two gay ladies as sweet as pie.
"See that barefoot chap," he hears them say.

"Hello there, Bub, how are you to-day?"
Now there it goes that old name "Bub!"
He'd be better content with an outright snub.

He reaches the brook and spies a frog
Just sitting hard by that old dead log;
He picks up a rock, frog sits quite snug,
Round comes his arm, zip—he goes "Ker-chug."

"I didn't quite get him, come mighty nigh.
But 'cause I slipped that's the reason why.
Next time he comes to the top I'll see
That he'll stick there fast in the mud for me."

Little dog Tige is his best playmate,
And their love to each is shown very great,
For of their joys they equally share—
They're two happy ones—this odd-matched pair.

When through the fields they a jack-rabbit chase,
And Tige is left far back in the race,
His master's not harsh but says with a grin,
Patting his head, "Pretty nigh got him."

Legion I count the farmer boy's gifts,
Tho' to some he seems sort of a shift.
'Tis he the lad to the front doth rise,
'Tis he the true, the brave, and the wise.
Farmer boy's life of ardent adventure,
Details all a bright glowing grandeur,
With his broad-brimmed hat and cheeks of tan,
Would I could be just like him again!
—Sylvester Baringer, Beattie, Kans.

Good Times.

There is only one thing that is better than good hard work all the time, and that is, fun part of the time. "All work and no play makes Jack a dull boy." Fun, good times, recreation, are as necessary as labor. What is the use of toiling to get the daily bread to support life, if that life is not joyous and sweet and full. It is the abundant life that is worth while. Sometimes I think there are a good many young people who do not know how to play. They take their recreation so seriously, as a cat takes her nap, with one eye open, lest any little mouse of reality escape them. It is a good thing to disengage oneself from the realism of business the facts of crops, stock, dollars and cents, and become an inhabitant, for just a little while, of the world of play. To just enjoy oneself—what a pleasure, what a rest!

There is a great difference in the way different people take their recreation. I know two model young men, both popular, both intelligent, gentlemanly and well-educated. One of them, a thoroughly exemplary young man, looks after the wall-flowers, talks to the old ladies, says funny things without a smile, laughs at other people's jokes, be they ever so feeble, in short, exerts himself to make other people have a good time. The second one says funny things and laughs at them; talks with pleasure to old ladies, young ladies, wall-flowers and children; sees the point to a joke if there is one, if not, says something that gives it a point; he enjoys things so much himself that his good humor overflows and floods everybody. Do you see the difference? One laughs at your joke because you will feel hurt if he doesn't—the other laughs because he can't help it. So far as other people are concerned, one is as agreeable as the other. So far as their own enjoyment is concerned, the second has far and away the better time.

For rollicking, wholesome, whole-hearted enjoyment, there is nothing like out-of-door games. To be sure, one does not have to have games in order to find recreation. You can talk—so long as it is not about your business—you can dream, you can take a walk, you can drive, you can do any number of

things. But games are very pleasant. Sometimes you don't want to walk or drive, you have nothing particular to say and nothing to dream about. Then is when you want to play games. It is constantly a surprise to me that so few people in the country have a tennis-court. I think there are only two families of my acquaintance in the country who have them. To be sure, they cost a little money and a little work, but ten or fifteen dollars should about cover the expense and a little scraping and smoothing of a level piece of ground, the planting of two posts and an occasional marking with lime is all the work, and what fun tennis is! Then there is croquet, milder and less exciting, but ever so much fun. It is great sport to get the older people, the mothers and fathers, aunts and uncles, to join in these games, and it is surprising how much they will enjoy them. It reminds us that they are only young people with a few years added to them. Often they will not attempt the tennis, asserting that it is too lively for them, but you may find that they can beat you at croquet.

There are a great many in-door games, any one of which will employ an evening—indeed, many evenings—pleasantly. Ping-pong is the rage now, and it is no end of fun. You can get sets for from fifty cents up to fifteen dollars. It is called parlor tennis and is very much like tennis except that it is played in the house. Then there are crokinole, checkers, dominoes, authors, logomache, any number of the good old games, that will never be too old to afford innocent and hearty amusement to happy vigorous young people.

Let us not be afraid to take time to play, and let us play just as heartily and as self-forgetfully as we work.

A Wedding in Old Kentucky.

The following description is taken from a paper published in 1874:

In the early days of the State, a Kentucky wedding was an affair in which the whole community joined. The ceremony took place just before noon, at which hour dinner was served as a nuptial feast. On the morning of the wedding day, a party of young men and maidens gathered to escort the groom from his father's house to the bride's dwelling. The forest path was narrow—there were no roads then—and so they rode in double file, a young man and a maiden side by side. Their horses were caparisoned with old saddles or old blankets, and guided by old bridles or halters.

The men were dressed in their best moccasins, leather breeches and leggings, and in the famous Kentucky hunting shirt. This was usually made of linsey or coarse linen, and sometimes of a dressed deer skin. In the breast was a pocket for holding food, tow for wiping the rifle, and other articles. A belt, tied behind, confined the shirt to the body, and held the bullet pouch, the tomahawk and the knife in a leather sheath.

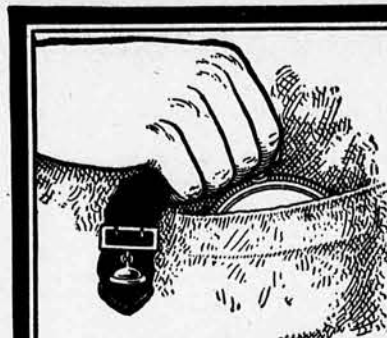
As picturesque in their array were the ladies, in linsey petticoats, linen gowns, coarse shoes, knit stockings and buckskin gloves. If one belonged to an old Virginia family, she displayed a ruffe, a buckle, two or three metal buttons and a ring—the relics of old times, handed down as heir-looms.

Sometimes the march through the woods was disturbed by jocular neighbors. Forming an ambuscade, they would fire their guns, for the pleasure of seeing the horses spring and the chivalric young men trying to save the shrieking maidens from falling.

In those days whisky was the beverage, and, when the party arrived at a mile from the bride's cabin, there was a race for a bottle of that liquor. Two young men, selected as champion riders, would be started with an Indian yell. The worse the road, the better the race. Over logs, through brush and muddy hollows, across streams, they would dash. The winner of the prize distributed it among the company.

The conclusion of the marriage ceremony was the signal for dinner. It was a substantial feast of beef, pork, fowls, venison, bear meat, potatoes, cabbage and other vegetables. After dinner dancing began, which was kept up till late in the night. If seats were scarce every young man not engaged in the dance was expected to offer his lap as a seat to one of the girls. The offer was sure to be accepted.

The next thing after the wedding was to "settle" the young couple. On a piece of land given by one of the parents the party assembled to erect a cabin. The choppers felled the trees and cut them in proper lengths. A carpenter selected a tree suitable for making clapboards for the roof, while others hewed out puncheons for the floor.



A Watch Case Wears

at point of contact with the hand or pocket. A solid gold case wears thin and weak and a cheap filled case wears shabby. A Jas. Boss Stiffened Gold Case is guaranteed to wear for 25 years. It is made of two layers of solid gold with a layer of stiffening metal between, all welded together in one solid sheet. The outside gold will last a quarter of a century and the stiffening metal will keep the case strong as long as you wear it. This is why thousands wear the

JAS. BOSS Stiffened GOLD Watch Case

on costly works in preference to a solid gold case. Ask your jeweler to show you a Jas. Boss Case and look for the Keystone trade-mark stamped inside. Send for Booklet.

THE KEYSTONE WATCH CASE COMPANY, Philadelphia, Pa.



Getting out the timber was one day's work. The "raising," in which all the neighbors joined, occupied the next, and on the third day the cabin was finished. This was a simple job. The carpenter smoothed off the floor, made a clapboard door, a table, some three-legged stools, a bedstead, two or three shelves—and the cabin, after the "warming," was ready for the bride and groom.

Shelves were made by driving wooden pins in the logs and laying on them narrow boards. A split slab with four auger-holes, in which four legs were inserted, formed the table.

The bedstead illustrated the art of making the best use of the materials on hand. Two forked sticks, fastened to the floor and a beam, supported poles, which were held in place by being inserted in the cracks of the log walls. On these boards were placed to form the bottom of the bed.

A few pegs around the walls for the woman's things, and two small buck's horns in a joist for the rifle, completed the house. Then came the "warming," which was a dance and a feast. The following day the young couple established their home in the new cabin.

In these plain log cabins were reared some of the great men of Kentucky—eloquent lawyers, able statesmen and renowned soldiers.

Country Boy Fifty Years Ago.

"What are the young farmers' chances for success compared with those of the country boy of fifty years ago?" asks a contemporary, and it answers its own question by saying that it is a complex one, involving a multitude of conditions so varied that they are difficult to analyze, but on the whole it thinks the boys' chances are favorable.

Why should there be any question of the boys' chances being favorable? They are immeasurably better today than they were fifty years ago. The chances of every boy and man, whether on a farm or elsewhere, are better today than half a century ago, but it takes more acumen, activity, strenuousness, applied talent, general intelligence and determination to succeed now than it did then. It may be said that if the qualities mentioned are necessary to success in this age, few if any will be found with the required equipment. Not so. The boys of today are as fully equipped as were their grandfathers when the latter had attained maturity, and singling out and pointing to exceptions will not confute the statement. New authorities have come into existence, and with these our present day boys have measured themselves, unconsciously perhaps, as step by step they advanced. Our schools are more comprehensive in their teaching and more exacting in their demands upon pupils, and barring the useless fads that are too often taught, give their attention largely to the training that is necessary to success.

Confining these remarks to boys who are reared on the farm and who intend staying there, it should be said that while farms cannot be bought as cheaply as fifty years ago, there is the very best of reason for it—they are worth more. If the boys were to settle in a new country when land is cheap, there is abundant opportunity still, for this land of ours is far from being overcrowded. They can then grow up with the country and in time become men of means and influence. If, on the other hand, they would prefer purchasing an improved farm, they will not consider the increased cost a hardship, as it saves them from the drudgery necessary to bring the land and all that pertains to it to a state of perfection. This

assuredly does not present any complexity nor involve a multitude of varied conditions. It is simply a question of suits or buying results that some one else has achieved.—Ex.

FOR THE LITTLE ONES

WHO?

"Whoo-hoo, whoo-hoo-who?"
Oh, hear it booming along!
The voice of the horn-eared, moon-faced owl,
Solemn and deep and strong.
Far, afar in the gloomful wood,
He sits and stares from his door,
Stares and listens, listens and stares,
And questions over and o'er,
"Whoo-hoo, whoo-hoo-who?"

"Who was that that went like a flash?"
It was Reynard fleeting by,
Soon from the frozen fields will come
Wild on the wind his cry.
"Whoo-hoo scurrying through the brush?"
'Twas Bunny taking a leap.
"Whoo-hoo stirring the alder boughs?"
Chickadee hopped in his sleep.
"Whoo-hoo, whoo-hoo-who?"

Keen and quick is his gleaming eye;
Run, little wood mice, run!
If the ogre owl comes swooping down,
He will end your dainty fun.
Hark! a sound on the frosty air!
Some voice comes ringing through!
And again the great owl booms it out,
That weird and shivery, "Whoo?"
Whoo-hoo, whoo-hoo-who?"
—Elizabeth Hill.

Tom and the Crayfish.

Tom was a naughty boy, in some ways. His very worst fault was teasing animals, and taking the life of bugs and worms and other such small creatures.

Mr. Jones was Tom's teacher. He had seen Tom at several of these heartless deeds, and he often wished he might do something to make him interested in the little animals he liked to destroy.

One Friday afternoon after school when Tom came along by the little brook at the foot of a hill, on his way home, he saw Mr. Jones standing there with a crayfish in his hand.

When they met, Mr. Jones said, holding the crayfish up so he might see it, "Tom do you know what this is?"

Tom laughed. Why, I ought to, I've seen millions of them."

"But," as Mr. Jones, "did you ever look at one closely?"

Tom laughed again. "A fellow doesn't have to look at 'em very close; you can see all there is to see quite a piece off! Can't tell me nothin' 'bout a crayfish I don't know, Mr. Jones."

"Can he hear?" inquired Mr. Jones.

Tom was silent a moment; then he thought, maybe, he could.

"Where will I find his ears?"

Tom could not tell.

"Do you know what he eats?"

Tom was again obliged to say that he did not know.

"How does he get his food?"

Tom had no answer ready, it seemed.

"Do you know how he chews his food?"

Tom did not.

"Have you seen his teeth? Do you know where they are?"

Tom made no answer.

"Ah," said Mr. Jones, "there seem to be several things about this little creature you do not know, though, as you say, you have seen him a million times! Well, Tom, this animal can hear, and his ears are put down below his stomach. He lives on little fish, but, as he is himself sometimes eaten by other fish, he must get what he wants very quickly; so he hides himself under a rock, darts out at the little fish he likes as they pass and swallows them whole. His teeth are in his stomach, and when he has swallowed his fish,

they begin to chew it. There is a little sieve at the bottom of his stomach, and all the food that will not go through this, he throws out of his mouth again."

Tom listened in surprise. He has since had many interesting talks with Mr. Jones; but for several reasons he has never forgotten his very first talk with him, about the crayfish.—Mary Stanley Boone, in Little Folks.

The Home Circle.

A LOST TYPE.

Oh, for a glimpse of a natural boy—
A boy with a freckled face,
With a forehead white 'neath tangled hair
And limbs devoid of grace.

Whose feet toe in, while his elbows flare;
Whose knees are patched all ways;
Who turns as red as a lobster when
You give him a word of praise.
A boy, who's born with an appetite,
Who seeks the pantry shelf
To eat his "piece" with resounding smack—
Who isn't gone on himself.

A "Robinson Crusoe" reading boy,
Whose pockets bulge with trash;
Who knows the use of a rod and gun,
And where the brook trout splash.

It's true he'll sit in the easiest chair,
With his hat on his tousled head;
That his hands and feet are everywhere,
For youth must have room to spread.

But he doesn't dub his father "old man."
Nor deny his mother's call,
Nor ridicule what his elders say,
Or think that he knows it all.
A rough and wholesome natural boy
Of good, old-fashioned clay;
God bless him, if he's still on earth,
For he'll make a man some day.
—Detroit Free Press.

Yes, We Think!

If one has ordinary ability to think, or has stopped a few moments to get a good perspective of existing facts, or has made but the slightest study of history from an evolutionary standpoint, he will be forced to lay down the old bow and arrow idea and take up the modern gatling.

If the question to be considered were stated thus: Did our forefathers think? a discussion would be unnecessary. Comparatively speaking, our ancestors did not think. They did not have to think. What one man did every man did. What he did one year he did each year as long as he lived. The mode of living then was very simple. A man's wealth consisted of a few acres of land, a cabin, a few sheep and a spinning wheel. Where it was convenient, barter was resorted to.

Wonderful as must have been the intellectual development received from the old method of making Johnny a new coat or knitting Sammy a new pair of stockings, yet how many ambitious young people are there today who would dispense with the present methods for those of our great grandmothers? Did you ever think that where there was one thing then to be observed mentally there are thousands to-day? Did it ever occur to you that while our grandmothers had time to think of one thing we have time to think of thousands?

Did you ever see an old daguerreotype picture? Where there was one of these in a home there are now dozens of handsome photographs that really resemble the original. Where there was one person capable of producing one of those old plates there are now thousands of amateurs who can produce good pictures. Where there was then one large painting there are now hundreds in our homes. Copies of the finest paintings in the world can now be had for one dollar, and these are found in almost every home in America. Nothing is more conducive to thinking than beautiful pictures. Do we think?

How inconsistent it seems to attribute all the wisdom of the world to two men. We to-day are as far in advance of those men as they were in advance of Abraham. In fact, we have advanced more in the last century than the world advanced from the days of Abraham to the beginning of the last century. How do we account for this wonderful change? Is it because our ancestors could think and we do not? No! It is because the doors of the monasteries have been crushed in and knowledge given to the masses instead of the classes. It is because feudalism has forever fallen and the masses are now free. It is because men are now counted equal before God.

The idea that we are carried around on the shoulders of newspaper men is absurd. True, they have an influence and why should they not? The great men, the great minds of the world to-day are behind the press. How are we to pass an opinion except as the press gives us information of the world's occurrences? How many were capable of passing an opinion on the silver question before it was discussed by political

economists? How many could pass judgment on the destruction of the late Spanish fleet before reading the papers? How many keep in line with religious advancement? Only those who consult religious periodicals. After reading the various sides of the questions of the day, opinions are formed and conclusions are drawn. Papers do not do the thinking. They do not often draw conclusions. They simply state facts and leave the rest to the reader.

We are often counted lazy, shiftless, and are thought to show a lack of originality. We are of the opinion that students were never more original in their work in college. A few mild pessimists accuse us of plagiarism, but "the insignificance of the truth is lost in the magnitude of the accusation."

If thinking consists in hiding away in a dark room or going to a cave, hermit-like, to meditate, to philosophize, and to pick to pieces modern modes of advancement, it is true we as a class do not do much thinking. Thinking is the act of becoming acquainted with the immutable laws of nature and getting a conception of how we may get into harmony with these laws. All advancement must harmonize with nature. Electricity was captured and utilized as soon as nature's laws were obeyed.

After taking a conservative view of present conditions we are forced to say: "World, thou art wonderfully made. Thy possibilities to all are many. Thy people are ambitious and never satisfied with present attainments. Each new invention, each new discovery, pushes back the cloud and clears the mist, thus exposing still other possibilities." These possibilities are not exposed to the few but to the many. Liquid air was known to the masses for years before a few made it practical.

Nature hears and replies:

"My people are many and they please me,
No more can I hidden be;
It is the masses, not the classes,
To whom my laws must be free."
—The Students' Herald.

Problem of Rest.

G. STANLEY HALL, IN AINSLEE'S MAGAZINE.

"The problem of rest is no less complete than that of fatigue. Under some conditions it is the muscles which are first exhausted, the brain and nerve cells remaining relatively fresh. While the nerve fibers themselves, the function of which is to conduct impressions, recent experiments show to be hardly more subject to fatigue than an electric wire. The worst, and no doubt most common, type of fatigue is nerve-fag, and this is easiest caused by care, worry, anxiety, or by doing work for which there is no zest, but rather repugnance or at least indifference. Hence, it follows that to turn on interest cures exhaustion and converts work into play. A farmer wished some large piles of small stones thrown into a ditch a few rods away. It was late in the afternoon, and he knew his boys would plead fatigue, so he pretended to find a big nest of snakes in the water and began to stone them himself with great eagerness. The boys joined in the sport, and the work was done before the end of the hour with actual refreshment, because the play-instinct was a relay. So the problem of over-pressure in school, of which we hear so much, would not only vanish, but children can do much more work than is required and without harm under teachers who have the art of inciting interest. The fatigue of forced work is very real, but there are two ways of increasing a fraction. One is by lessening its denominator and the other by increasing its numerator; so to augment interest is a form of rest.

"Change of work is often real rest. Every one ought to have an avocation as well as a vocation, and cultivate an amateur interest in some form of exercise, game or culture very remote from his line of bread-winning activity. Perhaps no tire is so acute as that which is very partial and involves certain mus-

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cles, movements and brain centers, leaving others perhaps over-rested. By exercising the latter and, as it were, equalizing the area of fatigue or making it more symmetrically distributed, many of the best effects of rest are secured. Many of even the diseases of exhaustion are because energy of one part of our psycho-physic organism is overdrawn, while that of other parts is over-rested. This may make even sleep partial and haunted by the specters of the night. Every one who works with his muscles should carefully reserve some fraction of the day for reading and intellectual work. We are prone to forget that this is just as important as for literary men to take exercise. It is really amazing what one can do with only a fragment of a day and of their total strength if it is systematically used in one direction. Those who seek recreation in mere amusements of a frivolous nature are wasting precious time and capacity."

In Canning Time.

(WRITTEN FOR THE KANSAS FARMER.)

Patent screw-cap fruit cans have revolutionized the canning business, but there are many who fail to succeed even with these conveniences. After the caps are used a few times they become misshapen and do not exactly fit the jar. For this there is no remedy but to buy new caps, but often in opening cans one is forced to use a knife around the edge of the cap, pressing it out of shape so that it will admit air if used again unless it is again pressed down while hot. This may be done with a knife after the can is filled with the hot fruit. New rubbers should be bought every year if the cheaper kind is used. As the best grades cost twice as much as the common ones, I prefer to buy the cheaper ones for each canning season as the better quality will last no longer than two years.

Different kinds of fruit require different lengths of time for cooking. Peaches and berries require only a thorough heating through but should be at the boiling point when sealed. Grapes should only begin to simmer and it is best to have just enough for one can in the kettle at a time. Apples and pears should be cooked until they begin to soften before sealing.

The main points in successful canning are to have the fruit very hot, fill the cans until the juice reaches the top, wipe off all the fruit and juice from around the neck of the can, slip on a good new rubber, and apply the cap, then remove from the stove and screw the cap down as tightly as possible. Set the jar on a plate and allow it to become cold, giving it a turn or two with the can wrench if necessary. When cold, put in a cool, dark place. I use very little sugar in canning. Cherries, grapes and apples are sometimes improved by using it. CATHERINE.

Necessity of Sleep.

NEITH BOYCE, IN AINSLEE'S MAGAZINE.

"But if lack of sleep in some cases may cause death, lack of sleep is sure to do so. A person absolutely without sleep for nine days will die. Sufferers from insomnia sometimes maintain that they have gone for weeks without sleeping, but it has been proved that they do sleep without being aware of it. At a certain point sleep is inevitable, no matter what the bodily condition, the alternative being death. Prisoners have slept on the rack of the inquisition. And the Chinese found that only the greatest ingenuity and vigilance could carry out a sentence of death by sleeplessness. This mode of capital punishment was long in favor in China, and is said to be so to-day; while as a form of torture, deprivation of sleep is considered

one of the most efficacious weapons in the Chinese judicial arsenal. In some such cases the prisoner is kept in a cage, too small to stand up or lie down in, and constantly prodded with a sharp rod. Death by starvation, also a Chinese punitive method, is a slower process, and therefore, one would think, more calculated to appeal to the Oriental mind, if it were not that death by sleeplessness is thought so much more painful. In the latter case, the brain is the first affected of all the organs of the body; while in case of starvation, the brain longest retains its normal weight and character.

"A corresponding mode of taming wild elephants is said to be depriving the animals of sleep when first caught. In a few days they become comparatively spiritless and harmless. The brain of the elephant is held to be more highly developed than that of any other wild animal, but of course, as compared with a human brain, can be easily fatigued by new impressions, and so made very dependent on sleep. The wild elephant in his native jungle, however, is said to sleep very little—a further point for the theory of the universal ratio of sleep to intelligence. A man taken out of his habitat and placed in conditions which he never could have imagined—if transported to Mars, say—would doubtless need an extraordinary amount of sleep at first. There is the almost parallel case of a German boy, Casper Hauser, who up to the age of eighteen was kept in one room where he had no intercourse with human beings, or sight of any natural object, not even the sky. At eighteen he was brought to Nuremberg and abandoned in the street. For the first few months of his life among men he slept almost constantly, and so soundly that it was very hard to wake him."

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Kansas Farmer's Handy Guide

Contributed from various sources, including correspondents, scrap-books, and farm papers. Compiled and arranged by J. Clarence Norton, Moran, Kans.

CORN.

To Can Green Corn.—Select either sweet or common field-corn (sweet corn is best) cut from cob as though preparing to cook for the table. Make a rack from thin strips of lumber about two inches high, to keep the cans from touching the bottom of the boiler (a common wash-boiler) or some hay will do. The object is to allow a free circulation of water around the cans. Fill Mason glass jars with the prepared corn, crowd them full and screw the lids on without the rubbers, not too tight; place in the boiler, in any position, until full of cans. Fill the boiler with water, until cans are all covered; boil six to eight hours. Take out, let cool, wipe dry, put on new rubbers and screw lid down tight. Put in a dry, cool, dark place, and your corn will keep all right. While boiling keep a vessel of water boiling to occasionally fill the boiler, as the water evaporates. We have a few times used tin cans and soldered them, but glass jars will do as well if you are particular about the lids. The above is not a very "short cut," but it is a sure way, if directions are accurately followed.

In Canning Sweet Corn salt it as for the table and just before putting it in the can put in a very little bit of soda, just enough to make it foam, which does not take much. Skim the foam off and can. Use salt and soda according to the amount of corn.

Canning Corn Another Way.—Cut corn off cob. To every quart of corn add a teacupful of the juice of ripe tomatoes. Boil half an hour. Seal up while hot same as fruit or berries, and you will have as nice corn as you can buy from canning factories. The acid in the tomato juice preserves the corn. Do not season the corn until opened for table.

Canning Corn and Tomatoes.—Get a good variety of tomatoes, scald and peel. Now have sweet corn that is nicely in the milk, shave from the cob, taking care to not cut too deep. Cook together, fill your cans, seal carefully, and if you are fond of both, you will surely can every Fall in this manner. Be careful to use only one-third corn, as otherwise it will ferment and your labor be lost. Canning corn alone is a long, laborious task, and not often a success.

In Making Mush from Corn-meal, save time, patience and burning of fingers by spitting in salty water, then stirring into the boiling water a batter made from the corn-meal and water. It can be made smoother and more quickly in this way, and set back on the stove to simmer while the rest of the meal is being prepared.

Pickling Corn.—Gather roasting-ears. Take the silks off. Boil until done; cut off the cob. To every gallon of corn add 1 loose quart of salt, mix thoroughly; put in a jar, and with potato-masher pound down until brine covers the corn. Weight down. Before using, soak in several waters, to remove salt. Cook, and season to suit taste. This will keep all winter. Sweet corn is best.

Home-made Corn Popper.—Take two old tin pans, a broom handle, and make a popper that for cheapness, durability, and good work is hard to beat, as you can pop a panful at one operation over the cook-stove. Remove lid and shake pan right over the blaze, as the pan covers the hole and prevents smoking the house all up. To make one, nail one pan onto handle, letting the handle go clear across, and stick out over an inch or more. Make a hole in the other pan so it will slip over this end, cut out a notch on the opposite side to fit down over handle on back side. A piece of wire or string fastened to the cover above the notch and tied under the handle keeps cover on.

Cure for Corns.—If your shoes are large enough get a piece of soft sole leather and cut it into shape to fit the shoe, then cut away that part which would come under the large toe and joints. If the leather is thick enough it will raise the outside of foot and take the pressure off same and cure your corns.

Corns can be cured by applying a poultice of bread-crumbs and vinegar, as hot as can be borne; the corn can soon be picked out without a particle of pain.

COUGHS.

A Simple Cough Cure.—Wear a piece of raw cotton over your chest, from neck to waist. It can be torn off gradually to prevent fresh cold. A severe

cough of several weeks' duration was cured in a few days by this simple remedy, and several slight attacks "nipped in the bud." Next to getting well, comes the art of keeping so. Two rules will help to escape most of the ills to which flesh is supposed to be heir. First, know yourself, second, control yourself.

Syrup for Cough and Cold.—Take mullein leaves and boil well in water; then strain and add sugar to make a good thick syrup. Brown sugar is best. This is excellent for breaking up colds and coughs.

Excellent Recipe for a Cough.—Boil flaxseed in water until it becomes slimy; then strain and sweeten with rock candy powdered as fine as possible. Season with the juice of fresh lemons. Take a wineglassful whenever the cough is troublesome.

MISCELLANY.

To Cook Cow-peas.—Pick one quart of peas, wash, put them on to boil in cold water, let them boil till they swell, pour off the water, add enough boiling to cook them done. Put one slice of bacon (if very fat, if not, use two) into a skillet, press while frying to get the grease out. The grease can be poured into the pot at any time after the first water is poured off. Add a little red pepper. If the grease does not make the peas salty enough, add salt to suit the taste. After they are dished, sprinkle with black pepper. If cooked as above they will be nice and tender. Children are very fond of them. Any kind are good; the speckled kind are harder to cook tender.

To Get a Cork Out from within an empty bottle, take a fine wire, bend it so that it will go into the neck of bottle; invert the bottle and the cork will fall into the neck of bottle, pull out the double wire and the cork will come too.

Better than Cosmetics.—Following is a good recipe for a faulty complexion: Five cents worth of borax, one large tablespoonful of common cooking soda, camphor gum the size of a small nutmeg, one-half pint of bay rum; dissolve the borax, soda and gum in a quart of soft water, and then add the bay rum, let it stand twenty-four hours when it is ready for use. No nicer lotion exists than this, and it is invaluable for washing infants' and children's heads; yes, and the older heads also. It prevents and cures eczema. If ladies would learn that the secret in applying lotions they would not have such care-worn, wrinkled faces; and that is heat; in the bowl of hot water place some of the lotion, and bathe the face, neck and arms with it so long as it feels agreeable, use cloths made of worn out summer flannel garments, as they can be washed and renewed often. Wrinkles will take a back seat when women will take better care of their faces, and bathe their faces in hot lotions instead of cold water; any professional massage doctor will tell you this. It is so restful to the nerves and brain to follow this simple massage treatment.

Household Conveniences.—There are many little conveniences which add much to the comfort of the household, and cost but little money. A little forethought often saves time and labor. A calico curtain tacked over the wheel of the sewing-machine protects the operator's dress from grease. A small wadded quilt made especially to cover the bread when set to rise is cleaner and nicer than the old coats and shawls generally used. A small table hinged to the wall in the kitchen with a movable support under it, will be found very handy to mold bread, wash dishes or iron upon, and can be let down out of the way when not in use. Also a large one may be arranged the same way in the dining-room. An old dipper handle perforated with minute holes is very handy for sprinkling clothes when ironing, and can also be used to water house-plants, sprinkling the carpets, etc.

Farm Notes.

It is poor economy to buy more land than can be well cultivated.

The stability of any industry depends upon its profitability.

With most farm stock the time of low prices is the best time to invest. Generous treatment of the brood sows always pays in increased thriftiness of the pigs.

Any animal being fed heavily should have a good variety of food.

A well-bred animal will always show its blood in its fine glossy hair.

If the conditions of the ground will permit, August is one of the best months to set out strawberries.

Haul out and scatter all the manure possible on the land plowed for fall wheat.

The milk house should be washed, cleansed, and aired frequently so as to be perfectly pure and fresh.



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Manure is better at the start than clover but in the end the clover imparts the same elements.

The conditions of soil most favorable to growth of a plant are also most favorable for its improvement.

Nearly all of the diseases to which live stock are subject may be prevented by observing proper sanitary conditions.

Horses which have continuous work are less liable to be injured than those which are only required to do a day's work occasionally.

It is a good plan when trimming out the raspberry canes to bury the ends of a few thrifty canes to make plants for next season.

All of the food which a cow can be induced to eat that she will turn into milk is clear profit, what she consumes to sustain life is expense.

As soon as the harvest work is finished the implements used, as well as the cultivators, should be all gathered up and be stored under shelter.

When the energies of a tree are devoted to growing wood it can not be expected to do much good bearing fruit.

One beneficial effect of green manuring is that it improves the mechanical condition of the soil, making it more porous and easily mellowed.

The onion crop should be gathered as soon as the little fibrous rootlets have died and show signs of drying up. Pull and let lie on the ground until thoroughly dry.

Always select smooth and growthy animals to feed, even at a greater cost, as such animals will return a much better profit for the food consumed.

Whenever a horse is too warm to drink he is too warm to eat and should be allowed to stand awhile before either is put before him, but always water before feeding, and especially when brought in from work.

Eldon, Mo. N. J. SHEPHERD.

Peaches in Southern Kansas.

The peach king of Kansas, George W. Blair, of Mulvane, has notified the horticultural department that he will raise about 2,000 bushels of peaches from his orchard this year. This is an unusually good yield. Secretary Barnes of the horticultural department says that southern Kansas will have a big crop of peaches this year while the northern half of the State will not raise many.

Sunday On the Farm.

D. TROTT, ABILENE, DICKINSON COUNTY. It is said that if one's mind is kept on one subject continually without change, in time the mind will become insane. So on the same like one may say that if the body in connection with the mind is kept on one line of work continually without proper rest the body will become diseased and soon wear out or decay as well as the mind. It was seen of old that rest was necessary. Change for both mind and body is necessary in order to keep both healthy. It is said: "If any would not work neither should he eat." If one eats what another works for what is he better than a pauper? When one works at any honest calling eight hours a day, with eight hours of pleasure and eight hours of sleep between there is still a necessity for one day in seven to be devoted to rest for both body and mind, or change from other days. Hence the Sabbath was made for man, which is necessary for health and happiness.

It should be spent on the farm in a way that will improve both the mind and body. It would seem sometimes that there is too much difference made between that day and others. Some think, or act, as if any and everything may be done without sin, no matter how it may injure others, on any day but Sunday, but if done on Sunday it would be a very great sin. We know, or should know, that what is sinful one day would be sinful any other day, so far as sin is concerned. It is a fact that many men have been known to get drunk on Saturday and on Sunday go to church and take the sacrament. Taking the sacrament on Sunday under such conditions was just as much a sin as getting drunk any other day unless the resolution was made to do better and stick to it in the future. Doing evil every other day in the week can not be paid for by Sunday's long face. Doing evil whether to ourselves or others, either to mind or body, on one day would be a sin if done any other day. Whatever will injure either body or mind, whether to ourselves or others, is a sin both on Sunday and Monday alike. Holy Sunday will not pay for an unholy week. Some children are brought up to dislike Sunday by just such a life. It is nice to attend church on Sunday and hear something that will elevate the mind, something that will help us to live better lives, something that will help us to be kinder to one another. It is nice to join voices in sweet song, voice to voice, heart to heart. It makes us better boys and girls, better men and women. Such exercises will rest both body and mind and make us stronger in both. It will help our ideals to rise to a higher plane. A little innocent amusement also can do no harm. But it is not enough to live unholy lives for six days out of the seven and then listen to two long sermons on Sunday, then study the catechism the balance of the day till bedtime. Children will not like such a day after such a week. To cheat on Monday and shake hands on Sunday is wrong. Youth is the time for bloom, age is the time to ripen the fruit. The bloom of youth may make great promises, but much disappointment may be experienced at the ripening. The time of bloom is the time to give it a healthy nourishment so that the fruit may be of the right development. The plant surrounded by weeds can not make a healthy growth, neither can a young mind that is poisoned from day to day by bad example develop into a strong, healthy man or woman, either physically or mentally. Keep the Sabbath holy. There is no harm in visiting a neighbor boy or girl on Sunday, and there is no harm in going through the fields and watching the green things grow. It is no sin to watch the cattle and hogs eat and grow on Sunday. It is well to remember, however, that whatever is done will count for either good or bad without fail. So the bloom of youth must be properly nourished in order to mature the desired fruit. On Sunday we must try to improve our intellect. Give the body a rest as much as possible from every-day work. Do nothing but what is necessary so that we may improve both physically and intellectually, then we will grow up better boys and girls and make better men and women, and the fruit will be of the highest order at the ripening.

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WEEKLY WEATHER CROP BULLETIN.

Weekly weather crop bulletin for the Kansas Weather Service, for the week ending June 24, 1902, prepared by T. B. Jennings, Station Director.

GENERAL CONDITIONS.

The temperatures have been much more seasonable this week. Fine rains have occurred in all parts of the State, being heaviest in the northern counties and the extreme southern between Meade and Cowley. The area of least rainfall comprises Crawford, Neosho, Wilson, Woodson, Allen, and Bourbon, and portions of Linn, Miami, and Johnson.

RESULTS.

EASTERN DIVISION.

Wheat harvest is practically completed, though in a few counties quite a per cent of the crop remains uncut, owing to the wet weather, and much of it is badly shattered. Thrashing has begun in many of the counties. The corn crop is in fine condition; most of the corn has been laid by; much of it is in tassel and some in silk as far north as the Kaw river; the earliest is tasseling in Nemaha. The oats harvest is nearly finished south and has begun north, some being thrashed showing good yields. Flax is fine, is nearly ready to cut in Anderson and being cut in Elk. Potatoes are fine and the crop unusually large. Tame hay is being cut in many counties with good yields. Grass is fine. Apples are fine in Crawford and Shawnee, the early being ripe; they are badly damaged by worms in Marshall and are falling in Nemaha. The second crop of alfalfa is being cut in Elk and Morris with good yields; too wet to cut in Shawnee. Grapes fair crop in Shawnee.

Anderson County.—Corn laid by; oats and wheat about harvested; flax nearly ready to cut; potatoes good; hay fine.

Atchison.—Corn generally laid by and looking fine; louse on roots injuring some corn; some wheat in shock damaged by wet weather and harvesting delayed; harvest of good crop of oats begun; potatoes good.

Bourbon.—Hay crop good; corn laid by with good prospects; much wheat and rye lost on account of rain.

Coffey.—Ground too wet; much oats being cut; some wheat will be lost.

Crawford.—Corn growing rapidly; oats in

Woodson.—Corn laid by; early corn in silk and tassel; some thrashing done; hay crop good; wheat not all cut.

Labette.—Little oats but considerable wheat uncut, later badly shattered; corn in good condition.

MIDDLE DIVISION.

Where the ground permitted, the wheat has been mostly harvested; thrashing has begun in the south, crops not the best. Oats harvest is progressing in most of the counties and an unusually fine crop is being gathered. Corn has grown rapidly and is in fine condition; most of it is laid by; it is tasseling and silking in several counties, and in roasting ears in Barber and McPherson. The second crop of alfalfa has made good growth in Saline, and is ready to cut in Reno. Grass is in fine condition; it has made good growth in Cloud, and gives good prospect for hay in Barton, Dickinson, and Reno, but in general are fine and unusually abundant. Peaches and apricots are being marketed in the south, and tomatoes in Barber. Some apples were blown off in Smith.

Barber.—Thrashing; wheat very chaffy; oats and rye good crops; corn in silk and tassel; roasting ears, apricots, peaches, and tomatoes on market; vegetables plentiful; potatoes fine crop; pastures good; cattle fat.

Barton.—Harvest delayed by rain; corn, cane, and Kafir growing rapidly; some potatoes rotting.

Clay.—Wheat harvest about completed; oats being harvested; good yields promised.

Cloud.—Wheat harvesting delayed by rains, yield short, light weight; corn and grasses rapid growth; some damage to oats by high winds.

Cowley.—Thrashing in progress; corn fine.

Dickinson.—Much wheat harvesting completed; excellent crop of oats being harvested; some corn in tassel, good prospects; potatoes rotting.

Ellsworth.—Corn and Kafir fine; harvesting wheat, some weedy, crop generally better than expected.

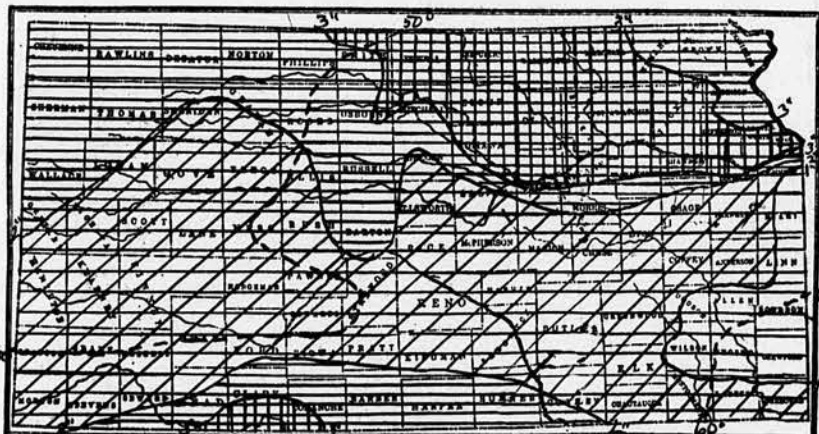
Harper.—Harvest over; oats promise large crop; corn good; 7 to 17 bushels of wheat per acre.

Jewell.—Wheat harvest slow; oats nearly ripe, promise good crop.

Kingman.—Thrashing wheat and oats commenced; corn in tassel and silk, prospects good; potatoes good crop; apricots fair crop; peaches on market.

Lincoln.—Ground dry; harvest slow on

Rainfall for Week Ending July 5.



SCALE IN INCHES.

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

shock; wheat thrashing begun; about one-fourth of wheat not cut and is shattering badly, some fields abandoned; flax turning; good yield of clover and timothy; apples, plums, and potatoes fine.

Elk.—Some cutting flax and second crop alfalfa.

Franklin.—Good week for haying, cutting oats, and general farm work; best oats crop for years.

Geary.—Corn a good color and promising a good yield; wheat and oats damaged by continued rains, none stacked and little thrashed.

Jackson.—Too wet for work; early corn laid by and clean, late weedy; large crop of hay; oats hurt by wet weather, lodging badly; wheat in shock, early cut sprouting and moulding.

Jefferson.—Harvesting of oats delayed by rains.

Johnson.—Timothy haying commenced; corn tasseling, some silking; wheat thrashing delayed by rain; oats nearly all cut; potatoes fine.

Leavenworth.—Wheat thrashing begun, good yield; stock doing well on good pastures.

Marshall.—Shocked wheat damaged some by continued rains; oats harvesting somewhat delayed by rain, good crop and quality; second crop alfalfa about ready to cut; grass very good; potatoes good; apples badly damaged by worms; corn prospect fine.

Montgomery.—Good week for corn; some wheat cut, stacking and thrashing in progress, yield light, quality poor.

Morris.—Second crop alfalfa being cut, good yield; fine crop oats about all cut; cane and Kafir being cleaned.

Nemaha.—Some shocked wheat damaged by rain; oats being cut, some fallen or rusty; most of corn laid by, growth good, early tasseling; grasses fine; forage crops good; potatoes plentiful; some apples falling.

Riley.—Wheat and oats damaged by rain; warm, dry weather needed.

Shawnee.—Much ground too wet; corn mostly laid by, growing rapidly and color improving; early corn in tassel; second crop alfalfa uncut; oats fine, harvest begun, some thrashing; wheat yielding well, grain plump and fine; rye a good crop; grapes promise fair crop.

Wabunsee.—Corn fine and much laid by; wheat so far thrashed shows thirty bushels; oats promise good yield; some damage in bottoms by rains.

Wilson.—Much corn laid by in fair condition, some being cleaned; oats thrashing 2 to 50 bushels per acre and wheat about 30 bushels; flax and grass good; potatoes very good; bottom land wet.

account of weeds; corn fine; hay plentiful.

McPherson.—Corn fine, in tassel and silking, good roasting ears on market; harvest about over; oats heavy crop.

Phillips.—Harvest delayed by wet weather; corn fine.

Pratt.—Wheat in stack, some will stack; harvesting good crop oats; corn doing well; pastures good.

Reno.—Corn tasseling and some beginning to ear, laid by, generally clean; wheat and oats being harvested; second crop alfalfa about ready to cut; some potatoes rotting.

Republic.—Wheat harvesting retarded by wet weather; some wheat shattering; early oats ready to cut; corn looks well.

Saline.—Corn and alfalfa growing nicely. Sedgwick.—Corn promises good yield, fairly clean and mostly laid by; roasting ears plentiful; oat crop fine, but lodged by wind.

Smith.—Harvesting wheat; corn mostly laid by; some apples blown down.

Stafford.—Wheat harvested; all crops doing well; ground fine.

Sumner.—Stacking in progress; too wet to thrash; all growth rapid; early corn in roasting ear.

Washington.—Bad week for harvesting; oats rusting; early corn tasseling.

WESTERN DIVISION.

Wheat harvest is progressing in several counties, showing a fairly good crop in Decatur but a light crop in Ford. Corn is doing well, it has grown rapidly in Decatur, and the early is tasseling in Grant. Forage crops are doing finely and in Grant Kafir is heading. Cattle are doing unusually well and the grass is fine. Apples promise well in Kearney. Peaches and apricots were injured by wind in Clark, while in Kearney apricots and plums are ripening and peaches promise well.

Clark.—Grass fine; cattle in good condition; ripening peaches and apricots injured by wind.

Decatur.—Harvesting wheat, good berry, well filled; second crop alfalfa nearly ready; corn rapid growth.

Finney.—Warm, much wind; range fine and cattle doing well; alfalfa rapid growth.

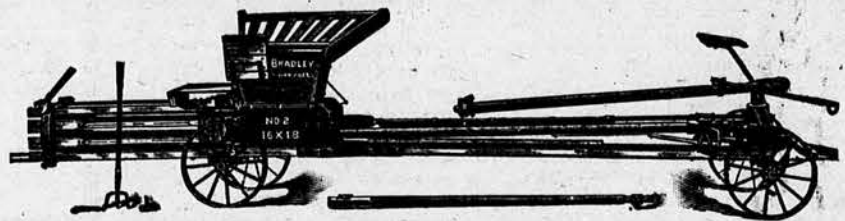
Ford.—Harvesting wheat, crop light; oats, barley, and corn looking well; alfalfa fine; prairie grass good; cattle fine; warm and windy.

Graham.—Harvesting nearly done; chinch bugs in corn; forage crops fine; some wheat shattering badly; stock doing well.

Grant.—Early corn tasseling; ground too wet to work; Kafir heading.

Kearney.—Rain needed, but all crops

BRADLEY ALL STEEL DOUBLE CAM HAY PRESS



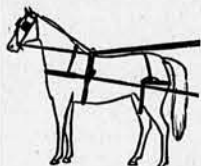
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One Horse Can Operate It. Very Easy for Two.

Lifting Jack Goes with Each Press. Has an Automatic Plunger Draw.

POWERFUL—Puts full weight into ordinary car. Tracks with a wagon; can be drawn by two horses on common roads. If you want a RELIABLE PRESS, buy a BRADLEY. See our nearest agent for further description and prices or write us direct.

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Fine Set Single Buggy Harness. Price \$6.75.

YOU GET THE PROFIT

By buying direct from the manufacturer, the jobber and retailer are cut out and you get their profits.

We will sell you Carriages, Buggies and Harness at actual cost

of making with reasonable profit added. Buying direct insures a large saving and satisfaction. Your money returned if not satisfied. For catalogue and prices address

ST. JOSEPH BUGGY CO., St. Joseph, Mo.



No. 27. Top Buggy. Price \$36.85. Fully Warranted.

looking well; apricots and plums ripening; apples and peaches promising.

Lane.—Grass good, stock doing well.

Norton.—Harvesting; second crop alfalfa nearly ready to cut; range and pastures fine; potatoes good.

Thomas.—Harvest delayed by rain; grass fine, and cattle doing well; second crop alfalfa nearly ready; corn and forage doing well.

Trego.—Harvest almost finished.

Publishers' Paragraphs.

An opportunity for investment or a position is given our readers as per the announcements of the Ginseng Company of St. Louis on page 720. In writing them be sure to mention the Kansas Farmer. It will be to our mutual interest to do so.

Saybrook is the name of "An Historic Town in Connecticut" whose charm is pictured for us by Clifton Johnson in the New England Magazine for July. The interest of the article is greatly enhanced by its illustrations, which are unusually effective.

Everybody is entitled to his own weight. Sometimes it costs a great deal to have your own way about some matters. But every home needs the convenience of a small family scale, such as the Clover Leaf which is being sold at a very low price for a limited time by P. W. Griggs & Co., 208 West 6th St., Topeka, Kans.

The Hiawatha Incubator Company, of Hiawatha, Kans., is under the supervision of Mr. E. H. Edgerton, an old Agricultural College boy. He not only has an excellent machine and a good factory in which to manufacture it, but he now has bought an automobile in which to send his traveling man out over the country. When you want energy, push, and general "get-there" ability, hunt up an Agricultural College boy.

The Blue Valley Creamery Co., of St. Joseph, Mo., "pioneers" of the farm separator system, seem to be one of the attractive and sensational successes of the new century, and their system evidently appeals to the dairymen with special interest. The writer recently perused the opinions of a hundred Kansas and Missouri dairymen which is a most flattering commendation of this firm and its plans. Those of our readers who are not familiar should consult their permanent announcement which appears in the columns of the Kansas Farmer on page 724.

The prosperity which is felt by all classes of business is perhaps nowhere more noticeable than in the business of the Page Woven Wire Fence Company, of Adrian, Mich. They report that during the first five months of 1902 their collections exceeded the total collections for 1890, '91, '92, '93, and '94, by over \$50,000, which means that they are now doing a business which represents more money per month than they did in a year in the early '90s. The collections for the first five months of 1892 exceed those for the same period in 1901, by \$366,346.63. They now employ 1,400 workmen and have about 6,000 local agents supplying their neighbors with Page fences. They publish a handsome little paper, beautifully illustrated and named the Page Fence Age, which they will send free to any farmer who will ask for it.

A great many users of steam engines have been troubled with "scale" forming on the inside of the boiler and with the necessity of using water which "foams" the boiler. A friend of the Kansas Farmer writes that he has perfected what he considers the best boiler compound yet discovered. It will remove the scale with-

out damage to the boiler and will prevent foaming. As is well known there are several preparations designed for this purpose now on the market. Some of these are powders which foam the boiler, others are liquids containing acid which are destructive to the boiler. This new preparation is not detrimental in any way and the inventor offers to send samples free to any one who will give him a thorough test and report results to him. A letter addressed to the Kansas Farmer requesting these free samples will be promptly forwarded.

The Kansas Farmer won the Grand Prix at the Paris Exposition and is the only paper of its class to receive that honor. This makes us feel so good that we extend the glad hand to all who are successful in winning prizes in open competition. We have just received word from the McCormick Harvesting Machine Company that they have been winning some prizes themselves. Among the triumphs lately won by the McCormick in the field trials and exhibitions were those of Edinits, Bessarabia Government Exhibit, held from May 13 to 21, large silver medal—the only award on harvesting machines presented by the Imperial Agricultural Society, Russia; Kampen, Holland, June 12, 1902, gold medal—first prize over thirteen competing machines, including the Johnston, Deering, Osborne, Buckeye, Advance, Emerson, Champion, and Wood. This was the most extensive field trial ever held in Holland.

Mr. F. Barteldes of the Kansas Seed House, Lawrence, Kans., who is very well known to our readers and advertisers as a business man who is onto his job and who recently had the distinction of sending the first order of seeds bought by the British government for the restocking of the Boer farms in South Africa, writes us a congratulatory letter. He feels good along with other friends of the Kansas Farmer over the fact that this is the only paper of its class in the United States to win the Grand Prix at the World's Fair in Paris. In return we desire to congratulate the Kansas Seed House on their winning of the gold medal at the same fair for the best exhibit of Saccharine and non-Saccharine sorghum. It seems to take a long time to hear from the award committee over there at Paris but when we do get the news a few of us hear good things and the Kansas Seed House is one of them.

CORN HARVESTERS. It cuts and throws it in pile. One man and one horse cuts equal to a corn binder. Price \$12. Circulars free.

NEW PROCESS MFG. Co., Lincoln, Kans.

DISEASES OF MEN ONLY. The greatest and most successful Institute for Diseases of Men. Consultation free at office or by letter. BOOK printed in English, German and Swedish, explaining Health and Happiness sent sealed in plain envelope for four cents in stamps. All letters answered in plain envelope. Variocoele cured in five days. Call or address

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513 Francis St., ST. JOSEPH, MISSOURI.

PILES NO MONEY TILL CURED. 25 YEARS ESTABLISHED. We send FREE and postpaid a 200 page treatise on Piles, Fistula and Diseases of the Rectum; also 100 page illus. treatise on Diseases of Women. Of the thousands cured by our mild method, none paid a cent till cured—we furnish their names on application. **DRS. THORNTON & MINOR, 1007 Oak St., Kansas City, Mo.**

Grange Department.

"For the good of our order, our country, and mankind."

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.

Colorado State Grange.

Worthy National Master Jones has been among the Colorado patrons, and stopped off at Niwot long enough to give the Boulder County people a speech. We are all glad that he did, for it has done us a world of good. He has been here before, and we hope he may come again.

He and State Master Newcomb are down at Barr to-day helping the hustlers down there dedicate their new hall—and it makes us feel like a hired man without his dinner because we can not be there also. We believe we could soon rival New York in point of membership if we had Brother Jones here to help us.

Brother Newcomb brought him down on the 10 o'clock train Wednesday morning, and at 2 o'clock in the afternoon the Niwot hall was pretty well filled with patrons and friends. Those good, loyal patrons from the table mountains and foot hills came trooping in by the wagon load. "The Kid Grange"—hygiene—was represented, all right, but the kids were all busy irrigating, so they sent the old folk. It was the same over on Boulder Valley—but good old Brother Leyner came over to meet the National Master. Brother Leyner is one of that little handful of sturdy patrons who—when things looked blue in Colorado—pledged their sacred honor that they would "stand by the State Grange of Colorado so long as life should last!"

In the absence of the Master, Brother Richart, the meeting was opened by the Overseer, who presented State Master Newcomb. After a few introductory remarks, Brother Newcomb presented the Worthy Master of the National Grange. Brother Jones held the close attention of every person in the hall for more than an hour. He told why the Patrons of Husbandry came into existence, and gave a concise and comprehensive summary of the work our order has accomplished.

In the evening the hall was filled, and had it not been for a heavy rainfall, which in some places amounted to a cloud burst—our hall could not possibly have accommodated all who would have come. In a five minute speech Brother Newcomb introduced our National Master, who declared he could not possibly speak more than twenty minutes, but at the end of an hour and ten minutes he was still expounding Grange doctrine, and the audience was absorbing every word, and eagerly asking for more. A crowd of young men and boys in the rear of the room were as quiet and attentive as the older ones, and seemed deeply interested in every word. Brief remarks were made by State Lecturer, Brother James M. Platt and others. At the suggestion of Brother Jones the meeting was closed with the singing of America by the audience. A general hand shaking followed and the people departed saying all kinds of nice things about the Patrons of Husbandry.

As for Left Hand Grange we are proud to have had this visit from our National Master and hope and trust we may meet him again.—Will T. Wilson, Secretary Colorado State Grange.

A Week With Colorado Patrons.

On invitation of Brother J. A. Newcomb, Worthy Master Colorado State Grange, I spent a week attending Grange meetings in Colorado. Brother J. A. Newcomb went with me to all the meetings in Colorado. Our meetings were well attended, good interest shown and evidences of growth in membership and earnest work was manifest at each point.

Brother D. W. Working, Past Master Colorado State Grange, met us at Denver, introducing us to the editors of the State papers, leading citizens and State officials. Brother Working through his editorial work and writings is widely known in Colorado and throughout the United States. He also went with us to many of our meetings, making strong addresses at each meeting; he was especially happy in his address at the meeting of the Agricultural College at Fort Collins. Brother Working was

formerly secretary of the Board of Trustees of this excellent agricultural school; and in his address he noted the progress and improvement the school has made in the past few years. Under the present efficient management the school is truly, and in fact, an agricultural college where young men are taught the science of agriculture and how to manage the farm to best advantage. I was also pleased to note that young ladies were taught domestic science and how to prepare wholesome and palatable food and how to manage and keep the home. This school, if properly supported by the farmers—and I believe it will be—will be of incalculable value to the agricultural and industrial interests of the State. I was also pleased to note that the president and all the faculty and a majority of the Trustees were members of the Grange, and in full and hearty sympathy with the objects and purposes of the Order, and in close touch with the farmers of the State. This is as it should be, the co-operation of the Grange and agricultural colleges in every State should be close and ample.

Brother Newcomb has fully recovered from his recent illness and now tips the beam at 209 avoidupois. He is devoting much of his time and energy to building up the Grange in his State. He is honored, respected, and loved by all the patrons of Colorado, and when he speaks close attention is given to all that he says. Practically all the granges in Colorado are adding new members to their rolls.

I had the honor to assist him in dedicating a beautiful grange hall just erected at Barr. The hall is a large and commodious one. On this occasion it was full of earnest men and women. After the dedication the public schools of this township held their graduation exercises. Diplomas were awarded to a large class of young men and women, the county superintendent making a touching, beautiful, and impressive address.

This meeting at Barr was the largest and most enthusiastic meeting ever held in the village, and a golden chain of sympathy and cooperation was established between the Grange, the public schools of the county, to the mutual advantage of the Grange, the school, and the citizenship. AARON JONES.

Leading Exhibitions for 1902.

Missouri State Fair—Sedalia, Aug. 18-23.
Iowa State Fair—Des Moines, Aug. 22-30.
Ohio State Fair—Columbus, Sept. 1-5.
Nebraska State Fair—Lincoln, Sept. 1-5.
Minnesota State Fair—Hamline, Sept. 1-6.
Wisconsin State Fair—Milwaukee, Sept. 8-13.
Indiana State Fair—Indianapolis, Sept. 15-19.
Kentucky State Fair—Louisville, Sept. 22-27.
Michigan State Fair—Pontiac, Sept. 22-26.
Illinois State Fair—Springfield, Sept. 23-Oct. 4.
Texas State Fair—Dallas, Sept. 27-Oct. 12.
St. Louis Fair, Oct. 6-11.
American Royal Hereford, Shorthorn, Galloway, Aberdeen-Angus, Berkshire, and Poland-China—Kansas City, Oct. 20-25.
International Live Stock Exposition, Dec. 1-6.

Kansas Fairs in 1902.

Following is a list of fairs to be held in Kansas in 1902, their dates, locations and secretaries, as reported to the State Board of Agriculture and compiled by Secretary F. D. Coburn:

Allen County Agricultural Society—C. H. Wheaton, Secretary, Iola; September 2-5.
Barton County Fair Association—James W. Clarke, Secretary, Great Bend; September 2-5.
Brown County Fair Association—Grant W. Harrington, Secretary, Hiawatha; August 27-29.
Butler County Fair Association—H. M. Balch, Secretary, Eldorado; September 29-October 3.
Chautauqua County—Hewins Park and Fair Association—P. N. Whitney, Secretary, Cedar Vale.
Clay County Fair Association—E. E. Hcoues, Secretary, Clay Center; September 9-12.
Coffey County Agricultural Fair Association—J. E. Woodford, Secretary, Burlington; September 9-12.
Cowley County—Eastern Cowley Fair Association—J. M. Henderson, Secretary, Burden.
Finney County Agricultural Society—Fred Mims, Secretary, Garden City; August 27-29.
Franklin County Agricultural Society—Carey M. Porter, Secretary, Ottawa; September 16-19.
Greeley County Fair Association—G. P. Hawkins, Secretary, Tribune.
Harvey County Agricultural Society—John C. Nicholson, Secretary, Newton; September 23-26.
Jackson County Agricultural and Fair Association—S. B. McGrew, Secretary, Holton; September 23-26.
Jefferson County Agricultural and Mechanical Association—Geo. A. Patterson, Secretary, Oskaloosa; September 2-5.
Jewell County Agricultural Fair Association—H. R. Honey, Secretary, Mankato.
Marshall County—Frankfort Fair Association—J. D. Gregg, Secretary, Frankfort; September 23-26.
Miami County Agricultural, Mechanical and Fair Association—W. H. Bradbury, Secretary, Paola; September 9-12.
Morris County Exposition Company—M. F. Amrine, Secretary, Council Grove; September 24-26.
Nemaha County Fair Association—A. R. Spaulding, Secretary, Seneca; September 2-5.

CONSUMPTION CAMPS

The Latest Feature in the Fight Against the Dread Disease.

There are two ways in which to estimate the terror in which consumption is held: One is by the tables of mortality where consumption lords it as the king of deadly diseases; the other is by the way in which science is concentrating all its energies to combat the disease. All over the world the leaders of medical science are banded together in a league against consumption. Kings are in their advisory councils, and at this present time King Edward of England, is arranging for the expenditure of \$1,000,000 in a new effort to withstand the encroachments of this deadly disease. This money will be largely



spent in the establishment of consumption camps, places where people may live, practically out of doors, in the pure air and on the cleansing earth. It has been found that such a life is greatly beneficial to those suffering from lung disease, and especially in its earlier stages. But, at the best, any scheme for the cure of consumption which involves the cost of travel or the sacrifice of time must leave the majority of sufferers out of its calculations.

THE SHUT-OUT SUFFERERS.

The masses of the people have to work for their living; they have others dependent on their labors; they can rarely take an extended holiday; they have neither money nor leisure to barter for a cure of disease. What is being done for these people?

They will tell you, thousands of them, that when they were in the grip of disease, with agonizing cough, bleeding lungs, night-sweats and emaciation, hopeless of life, given up by friends and often pronounced incurable by physicians, they have been perfectly and permanently cured by the use of Dr. Pierce's Golden Medical Discovery.

"I deem it my duty to inform you concerning the wonderful restoration of my sister's health," writes Kate V. Reed, of 614 Park Avenue, La Fayette, Ind. "In February, 1898, she was prostrated by an attack of pneumonia, which (after several weeks), resulted in an abscess of the left lung. After the disease had progressed about five weeks her physician gave her up, saying that she was going into consumption, but it might be possible that as spring advanced she would improve, but with the return of winter the disease would renew itself and she could not possibly see another spring time. At this juncture another sister, residing several miles distant, came to visit her, bringing with her a bottle of Dr. Pierce's Golden Medical Discovery. She

had great faith in the medicine and hopes of its benefiting our sister, Rose. After writing to Dr. Pierce for advice we began using the medicine, and before many doses had been taken we noted an improvement in her condition. After using one bottle she was able to sit up in a chair for an hour or two at a time. Its use was continued until she had taken seven and a half bottles of the 'Golden Medical Discovery' and one of the 'Favorite Prescription,' when she declared herself cured.

"At the time she commenced taking your medicines she was so weak she could not raise her head from her pillow and was so emaciated that her weight was only ninety-five pounds; she now weighs one hundred and twenty pounds, and is able to work steadily at her vocation—dressmaking."

"HER PHYSICIAN GAVE HER UP."

That sentence from the letter above is in one form or another repeated in a large number of letters received from those who have been cured of lung disease by the use of "Golden Medical Discovery." Sometimes it is two physicians; sometimes three and four, who all say there's no help. If these "given-up" people are tempted under such circumstances to begin the use of "Golden Medical Discovery," it is generally because some relation or friend, who has seen the cures effected by this medicine, begs that it be given a trial. The result is almost always the same—a perfect and permanent cure of the disease. There are men and women today, an army of them, who are actively engaged in the business of life and enjoying its pleasures to the full, who once stood upon the scaffold of disease, given over by doctors to their final doom, but who were reprieved and restored to life by "Golden Medical Discovery." They are the

living witnesses to the truth of every claim made for this great medicine.

"I am a farmer and work the farm for a living," writes Mr. Eli Ashford, of Raney, Hunt County, Texas. "In the spring of 1891, I was taken with a cough, which grew worse, in spite of all the medicines which I had taken. I was so weak I could hardly get about, and began to spit up blood. My neighbors said that I would not live to see the next Christmas, but after reading your Memorandum Book I commenced taking Dr. Pierce's Golden Medical Discovery. I used fourteen bottles, and am happy to say that I am now well, and can do as much work as anybody."

THE OUNCE OF PREVENTION.

Dr. Pierce's Golden Medical Discovery cures colds, deep-seated coughs, bronchitis, bleeding of the lungs and other diseases which, if neglected or unskillfully treated, find a fatal termination in consumption. But it is well to remember that the ounce of prevention is worth the pound of cure. The germ of consumption finds no permanent lodging in healthy tissues. It is when the system is debilitated, as by catarrh, grip, and other diseases, that it offers the germ of disease a prepared soil. Dr. Pierce's Golden Medical Discovery cures catarrh and builds up the system enfeebled by grip. It makes the whole body healthy and strong to resist disease.

Accept no substitute for "Golden Medical Discovery." There is nothing "just as good" for diseases of the lungs, stomach, and blood.

HAVE YOU GOT ONE?

A copy of Dr. Pierce's Medical Adviser is invaluable in every home. Have you got one? If not, send twenty-one one-cent stamps, the cost of mailing only, and we will send you a free copy of the book in paper covers. Address Dr. R. V. Pierce, Buffalo, N. Y.

Neosho County Fair Association—H. Lodge, Secretary, Erie; September 30-October 3.
Neosho County—Chanute Agricultural, Fair, Park, and Driving Association—A. E. Timpane, Secretary, Chanute; August 26-29.
Ness County Agricultural Association—H. C. Taylor, Secretary, Ness City; September 24-26.
Norton County Agricultural Association—J. L. Miller, Secretary, Norton; September 2-5.
Osage County Fair Association—E. T. Price, Secretary, Burlingame; September 2-5.
Reno County—Central Kansas Agricultural Fair and Live-stock Association—Ed. M. Moore, Secretary, Hutchinson; September 15-19.

Rice County Agricultural Association—C. Hawkins, Secretary, Sterling; September 8-12.
Riley County Agricultural Society—A. B. Lee, Secretary, Riley; September 2-5.
Rooks County Fair Association—Olmer Adams, Secretary, Stockton; September 9-12.
Saline County Agricultural, Horticultural and Mechanical Association—H. B. Wallace, Secretary, Salina; September 2-5.
Stafford County Fair Association—Frank C. Swartz, Secretary, St. John; August 20-22.
Sumner County—Mylvane Agricultural Society—John A. Reed, Secretary, Mylvane.
Wilson County—Fredonia Agricultural Association—J. T. Cooper, Secretary, Fredonia, August 19-22.

Sharples "Tubular" Dairy Separators.

If no agent will bring you a Sharples Separator we will loan you one for trial **FREE OF COST.**

They give more butter than any other separator, enough to pay big interest on the whole first cost, and they turn much easier, besides being entirely simple, safe and durable, (former capacity doubled, with less driving power.) Improvements come fast here. We have been making superior separators for 19 years (longest in America) and are proud of them, but these new "Tubular" discount anything either ourselves or any one has ever made. Free Book, "Business Dairying," and Catalogue No. 165.

Sharples Co., Chicago, Ill. P. M. Sharples, West Chester, Pa.

In the Dairy.

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

Experience of Kansas Experiment Station in Pasturing Alfalfa.

EXPERIENCE IN THE FALL.—On the 26th of last September nineteen common cows were given all the alfalfa hay they would eat and in the afternoon pastured on alfalfa. They were watched carefully and left in from an hour to an hour and a half. No bad results followed. The next morning they were again fed all the alfalfa hay they would eat but after having a taste of the green alfalfa seemed to care very little for the hay. They were turned into the alfalfa pasture at 7.20 a. m. and were taken out at 8.35. No sign of bloat was apparent. They were left in a dry lot with access to alfalfa hay. At 1.20 p. m. one of the smaller cows had bloated and soon died. To give the matter a thorough test the remainder of the herd was again turned on alfalfa pasture and remained there about fifty minutes when one of the cows showed signs of bloating. Gas formed so rapidly that it was necessary to use the trocar and canula. When she died, at 4 p. m., the paunch was so full of food that very little gas could be removed by the canula. Four other cows were also bloated. Three were relieved by a gag and one was finally relieved by the trocar and canula although complete relief did not occur until about 7.30 p. m. The alfalfa was in a fine succulent condition as a result of the September rains.

EXPERIENCE WITH ALFALFA BITS.—Soon after this experience the Experiment Station was presented with some sample alfalfa bits with the request that we make a thorough test of them. These bits consist of a small tube about three-eighths of an inch in diameter, the bore being about one-fourth of an inch in diameter. The center of this bit is perforated with holes a little over one-eighth of an inch in diameter connecting with the bore running lengthwise of the bit. These holes are six in number and are about half an inch apart. It is claimed that these bits will prevent cows from bloating while pasturing alfalfa. The gas formed is supposed to go to the mouth, enter the bore of the bit through the perforations and escape from the bit on either side the mouth. Since the bits were recommended by some of our most successful stock breeders in the State we thought it no more than right that we should give them a test.

The first of November we took ten calves averaging about six months of age and put them on alfalfa pasture, five with bits and five without bits. These calves became accustomed to the alfalfa gradually, the time being increased about fifteen minutes per day until they got all that they would eat. This experiment was continued through the month of November and we did not have a single case of bloat either with or without the bits.

EXPERIENCE IN THE SPRING.—We continued the experiment with the bits during the months of May and June, 1902, using cows instead of calves. Three cows were provided with bits and one without. These cows were first allowed to eat all the tame grass pasture that they could handle after which they were turned on alfalfa for fifteen minutes. The next day they were given the same treatment with the exception of increasing the time on the alfalfa to thirty minutes, the third day they were on one and a half hours, the fourth day three hours and then all day and a little later were allowed on both day and night. No case of bloat appeared for over a week; at this time the alfalfa was cut and soon after the cows were

eating second growth. One morning soon after this the cow without the bit bloated immediately after being watered. She was relieved from the gas by a gag, after which an alfalfa bit was placed in her mouth when she was allowed to return to the alfalfa pasture. For a couple of days all went well after which she bloated up six different times and the last time had to be punctured. One of the other cows bloated three times and another four times. One of the cows went through the experiment without bloating at all. About the middle of June a fifth cow was added to the experiment with a bit. In less than ten days she had bloated twice.

Our experience indicates that it is unsafe to pasture alfalfa although some farmers have done it successfully and we have done it successfully with some individual animals. If a man wants to run the risk of pasturing alfalfa we believe that the bits are a valuable help in that they prevent the cows from eating alfalfa as rapidly as they would without them. The bits might have some influence as a gag although they appear to be rather small for this purpose and have a tendency to make the cows' mouths sore. Our experience indicates that the opening into the bore of the bit are of no particular value as they are stopped up with the green feed inside of five minutes after the cows commence eating. The straight bits seem to be better than the curved ones as they are more easily cleaned.

The cows did well while on alfalfa. They increased in the milk flow and not only did not need grain but would practically refuse to eat it. By careful watching we completed the experiment without losing any of the cows, but they required so much watching especially with the second growth of alfalfa that we consider it too risky to keep them on it further. D. H. O.

Experience in Combatting Flies.

G. C. WHEELER.

The most casual observer can not help but notice the great annoyance the swarm of flies are to domestic animals during the summer months. The more thoughtful person will admit that our animals would be more profitable if some means could be devised of ridding them of the swarm of flies which aggravate them from morning until night. The dairyman probably realizes this more forcibly than the producer of beef or other kinds of live stock, from the fact that the true dairy cow is of a nervous disposition and is more easily worried by fly bites.

That this demand for some form of fly protection is widespread among thoughtful dairymen and farmers is attested by the numerous inquiries which are constantly coming to our experiment station and the various farm papers for some cheap and effectual fly repellent.

There are numerous commercial preparations on the market of varying merit, advertisements of which will be found in our farm and dairy papers. The Kansas Experiment Station has made tests of quite a number of these preparations and will continue its investigation along that line.

For the past ten days the writer, who has immediate charge of the college herd, has been making a series of tests of a preparation sold under the name of Flyene. It has been used on thirty-seven skim-milk calves, eight thoroughbred dairy cows and six thoroughbred calves. It has been used in such a manner that comparison could be made and results of its use noted. A sprayer was used to apply the mixture and the thirty-seven calves were sprayed in about thirty minutes, being secured in stanchions during the operation.

As to results, it was noted that the flies were quite effectually driven away at the time of spraying and some which

became saturated with the spray fell to the ground. Complete protection lasted for not over an hour but the flies were present on the calves in smaller numbers for the whole day and also in the morning of the following day, thus showing some protection twenty-four hours after application.

The results upon the thoroughbred dairy cows were the most noticeable, they being almost entirely freed from flies during milking by spraying just before. Care must be used in spraying before milking, however, or the odor of the material might effect the milk.

As to the cost of the application, the experiments were not very conclusive, much more of the preparation undoubtedly being used in a large number of cases than was necessary. The skim-milk calves were all sprayed once and fairly well protected for less than one-half cent each. It was found that the spraying could be much more economically done in a shed or other place protected from the wind.

The following formula, which was originally prepared by the Entomological Department of the college has been found very effectual and also economical with the college herd and is being sent out by the Dairy Department in response to inquiries for fly mixture:

Resin, 1½ pounds.
Laundry soap, 2 cakes.
Fish oil, ½ pint.
Water to make three gallons.

Dissolve the resin in solution of soap and water by boiling together. Add fish oil and the rest of the water. Apply with a brush.

Silage as a Feed for the Dairy Cow.

S. REMINGTON.

Silage may be fed with advantage to all classes of farm animals, such as milk cows, horses, steers, mules, sheep, hogs and even poultry.

The feeding of silage can be traced back for centuries. The semi-barbaric people in different parts of the world have known and practiced this method of feeding. They buried their feed in underground pits to save it for the future and to save it from their enemies.

Silage should not be fed as an exclusive coarse feed to the farm animals but should be mixed and fed with some other roughage, such as hay, straw, etc., and should not be fed more than twenty-five or thirty pounds per head daily where the keeping quality of milk is an important consideration. In feeding the dairy cow, always feed after milking as the peculiar silage odor will be apt to effect the flavor of the milk.

Silage exerts a very beneficial influence on the secretion of milk. Where winter dairying is practiced cows will usually drop considerably in the flow of milk toward spring if fed on dry feed and cause a loss of milk during the whole lactation period. Where silage is fed there will be no decrease in the flow of milk before turning out to pasture in the spring, and the cows will be able to keep up the flow of milk until late in the summer or fall when they are dried up before calving.

Silage has the same effect as green fodder or pasture. A failure in feeding silage to cows comes from its being improperly prepared or fed in a poor manner to cows that are confined to the one feed.

There is good evidence at hand showing that where good silage is fed in moderate quantities it will produce an excellent quality of milk and butter. According to the butter experts, silage not only in no way injures the quality of the butter but better flavored butter is produced by judicious feeding of silage than can be made from dry feed.

The combinations in which corn silage will be used in feeding milk cows will depend a great deal on the local conditions. It should be fed with a fair proportion of nitrogenous feeds, such as wheat bran, ground oats, corn

350,000

Machines in Use.

Ten Times All Other Makes Combined.

The Standard of All That's Best in Dairying in Every Country in the World.

That's the history of the

DE LAVAL CREAM SEPARATORS

Send for new "20th Century" catalogue.

THE DE LAVAL SEPARATOR CO.

RANDOLPH & CANAL STS., CHICAGO. 74 CORTLANDT STREET, NEW YORK.

cob meal and clover hay. Silage furnishes a uniform quality to be had during any time of the whole year, hence it is succulent food, it is nature's food, and aids the digestion and the general health of the animal.

Value of Manure.

H. V. NEEDHAM.

Set more value to your manure pile. Save every forkful and spread it every day. Back some old wagon up to the stable and make it a regular chore to spread it out every day. Take the poorest field this year and so on the next year. A manure spreader will pay five times as much interest on the investment as a binder. Hire your neighbor to cut your grain and invest in a manure spreader.

A Necessity in Kansas Dairying.

ROY TAYLOR.

Dairying in Kansas is as yet in its infancy, but if the farmers would only arouse themselves and take enough interest in the business to study it as men in the other callings study their business, there is no reason why Kansas should not become one of the leading dairy States of the Union. She has plenty of cheap feed, has abundant railroad facilities, and as time goes on and the country becomes more thickly settled the farmers will be compelled to take up dairying, because the cow is a more economical producer of food for the human being than the steer or the hog. One of the first things that will

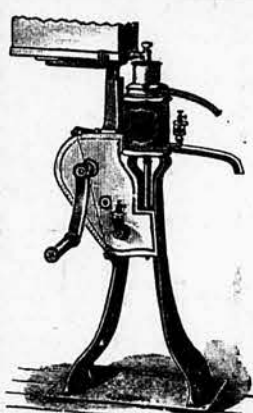
Notice to Dairymen

If you are thinking of buying a Cream Separator, write us for catalogue and information. We manufacture the best machine on the market.

DAVIS CREAM SEPARATOR CO.
54 to 62 No. Clinton St., CHICAGO, ILL.



The Easiest to Operate, the Closest Skimmer, Simplest and most Durable, is the **KNEELAND OMEGA Cream Separator.** We want you to know how good it is before you buy any other kind. Send for our free book, "Good Butter and How to Make It." The Kneeland Omega Creamery Co., 25 Concord Street, Lansing, Mich.



THE RECORDS SHOW COMPETITORS ADMIT THAT USERS TESTIFY . . .

THE U. S. SEPARATOR STANDS WITHOUT A PEER

Its record at the Pan-American Model Dairy of average test for **50 CONSECUTIVE RUNS0138**

has never been equalled by any other make. This, together with its many other points of excellence and superiority, such as

EASY RUNNING, DURABILITY, ENCLOSED GEARS, SAFETY, SELF-EMPTYING BOWL, STABILITY, BEAUTY, ETC., proves conclusively that

THE U. S. EXCELS ALL OTHERS.

WRITE FOR FREE DESCRIPTIVE CATALOGUES.

VERMONT FARM MACHINE CO.,

BELLOWS FALLS, VT.

ve to be done before dairying in Kan-
can become as profitable as it
ould be, will be to educate the farm-
to the necessity of breeding up and
proving their dairy cows. Success in
rying is impossible with a herd of
ws that just barely pay for the feed
y eat. The farmer must begin to
e pure-bred bulls of some dairy breed,
e whose parents, on both sides were
ongly bred along dairy lines, and
se the heifer calves, thus building up
herd of good dairy cows.

Economy in Creamery Management.

Major Henry E. Alvord chief of the
tional Dairy Bureau makes some per-
ent remarks that are of vast import-
ce to the dairy industry.

He says that the waste or by-prod-
s of butter making constitute an
ormous amount and that in creamery
nagement much of the success of
e creamery depends on the economic-
use of the by-products. In the west,
re than in the east, patrons do not
generally value skim-milk sufficiently
d will take almost any offer for it
her than to take it home. This ap-
es particularly to creameries where
whole milk is drawn to be separat-
ed. There is quite a market for skim-
lk in the arts. It is dried and used
making a low grade glue for paper
ing, wood filling, oilcloth and as the
e of some paints. For this purpose,
ducers get only about 10 cents per
pounds for their skim-milk. It is
o used for making calf foods and in
try state for making human food. In
s form, it is bought and used largely
bakers, and for this purpose, brings
sumers from 15 to 20 cents per 100
unds.

An owner of cows should be able to
over 20 cents per 100 pounds for his
m-milk at home. Our experiment
tions have shown that for feeding
ing and growing stock one can get
re than 20 cents per 100 pounds for
when it is rated with other foods. At
esent feed prices, it should be worth
m 25 to 30 cents. I would urge the
ater use of it in its natural form for
man food. It ought to be worth half
much as 4 per cent milk. For house-
d purposes one can get out of it
re than half the value of whole milk.
e best and most economical results,
must be used fresh and sweet. It
ver should leave the farm and I am
l always have been opposed to haul-
whole milk to the factory and then
m-milk back again. It is a distinct
vance in factory management to
ve an extension of farm separators.
e cream gathering plan is coming to
front again, either with the use of
m separators or many conveniently
ated skimming stations.

Educating the Colt.

We play and fondle with our colts
m the time they are foaled. I have
d them follow the children into the
use, and never put a halter on till
er they are weaned. In the winter
a rough day we halter them and
d them about in the shed at the
rn, then take them in a stall in the
se stable, tie them up, curry and
ash them, and how they like it!
hen they are yearlings turn them out
pasture and if I go to the field they
me to me like dogs, and they get
alous if I fondle one more than an-
ner. I can lift their feet and rub
eir legs. Second winter use them the
me, let them out on nice days for
ercise, and keep their feet rasped off
e and round, and curry and brush
em once or twice a month. Then at
o and a half years or sometimes not
three years old we harness them up
e same as an old horse. They are so
ntle they do not mind the harness at
l. Then put on the bridle and lead
em out. Sometimes hitch right away,
in a hurry, sometimes just two horse
am, sometimes four horse team, and
never raised a bad one in my life. I
ve bought a few that we had trouble
th hitching them. I still said, now do
u see, if we had raised that colt we
ould not have had that trouble.
ndle your colts from the time of
th, rub their legs, lift their feet, and
u will never have a kicker.—E. L.
yder, in National Stockman and
rmer.

There never was such a favorable oppor-
tunity to buy buggies, vehicles, and har-
as at so low a price as the present time.
yers can now secure all these, direct
om the manufacturer to consumer. The
ll-known and well-established firm, the
Joseph Buggy Company, of St. Joseph,
e, have a new announcement this week
page 721 that will be of special interest
nearly every one of our readers! The
gains they offer, as seen by the writer,
e certainly great values for the money
quired. They are so confident of their
osition that they offer to refund the
ney if the customer is not satisfied with
e goods. Write them and be sure to
ention the Kansas Farmer.

Brain Markets.

Conducted by James Butler, Secretary of the Farm-
ers' Co-operative Grain and Live Stock Association.

"The human race is divided into two classes,—those
who go ahead and do something, and those who
sit still and say, why wasn't it done the other way?"
—Oliver W. Holmes.

Notice.

If the readers of this paper desire
this department continued they should
express their appreciation to the man-
aging editor of this paper by forward-
ing subscriptions and writing letters de-
claring their interest in farmers' coop-
erative shipping associations. I am
confident that our members can mater-
ially increase the subscription list of
this paper if they will only go to work
and do their part, by getting at least
one subscriber and when you send a
subscription or write a letter to the
KANSAS FARMER, if interested in this de-
partment, you should make it plain to
the editor.

This department will be discontinued
in the near future unless grain-growers
and others interested make known at
once their interest in this work, to the
editor of this paper.

Form of Boycott.

The following letter has been issued
by the Grain Dealers' Union and sent to
the regular grain-dealers. This is the
manner in which the grain-dealers boy-
cott independent dealers, scoop shovel
men and farmers and still some farm-
ers are stupid enough to give them busi-
ness. Read the letter. It is as follows:

Chicago, Ill., June 27, 1902.

Dear Sir:—We desire to inform you
that F. W. Walter is the only regular
grain-dealer in Corning, Mo. Mr. Wal-
ter operates the only elevator in Cor-
ning and has considerable money invest-
ed, and should receive protection from
all receivers and bidders.

For your information we will state
that Dankers Bros., Corning, Mo., are
doing a scoop shovel business and I
would be pleased to have you advise
me promptly as to your disposition in
regard to giving Mr. Walter proper pro-
tection. Yours truly,

GEORGE A. STIBBINS, Sec'y.

We produce a letter this week that
shows plainly how the grain trust boy-
cotts farmers and independent dealers
out of existence. Read it.

Farmers' shipping associations have
been organized lately at Home, Spring
Hill, Jennings, Cherryvale, and Bartlett,
Kansas.

Farmers had just as well look at a
business proposition in a business way.
If they expect others to furnish all the
means and take all the chances, they
had just as well make up their minds
that others will get all the benefit.

THE MARKETS.

St. Joseph Live Stock Market.

South St. Joseph, Mo., July 7.
Receipts of cattle last week reached lib-
eral proportions, which was due to an in-
creased movement of Kansas and quaran-
tine cattle. There was an improvement of
the quality of the native beefs, more go-
ing from \$7.25@7.75 than in the history of
the yards. The good to choice cattle sold
steady to 10c higher, but grass-fed and
common kinds lost 25@50c. The good heavy
cows and heifers declined 25c with other
grades losing 50@75c. The demand for good
stock cattle was in excess of the supply
and these grades appreciated 15@25c in
value, but common light kinds showed no
improvement.

The receipts on the quarantine side were
the heaviest of the season and the bulk
of the offerings ran to steers, included in
which were good to choice grades early
in the week at \$6.15. The demand was good
at 15@25c lower prices. Cows made up a
light quota of the receipts and the demand
was strong although prices receded 25c.

The trend of hog prices was higher most
of last week and the demand was strong
at the improved range of values, with
prices to-day ruling the highest since 1893,
with the range from \$7.60@8.00 and the bulk
selling at \$7.75@7.95. The quality of the
offerings averaged better than the previous
week and the average weight showed an
increase.

Supplies in the sheep department showed
much reduction with the last few weeks,
with the bulk of the offerings running to
Texas and Wyoming sheep, the quota of
native offerings being very light. Under
the reduced supplies and a strong demand
from all the killers arrivals of decent qual-
ity advanced 15@25c in value, with best
lambs selling to the best advantage, while
the commoner grades were of slow sale at
no better values. Best spring lambs sold
at \$7. FRIDOLEY.

Last Week's Grain Market Review.

Topeka, Kans., July 7, 1902.
The excitement of the past few days has
been in the corn market of Chicago. No.
2 corn sold to-day for July delivery at 85c,
an advance of 7c per bushel since Thurs-
day. It is claimed that the firm of Harris
Gates & Co. have ten million bushels
bought that can not be delivered to them
for the reason that it is not in store in

More Milk. More Money.

Cows will give 15 to 20 per cent. more milk if protected
from the annoyance of flies with Childs' So-Bos-So-
Kilfly. It is a thorough fly and insect killer, and it abso-
lutely destroys all bacterial germs. It allays nervousness in horses
as well as cows and keeps both in better general con-
dition by the comfort it gives. For scours in calves,
hog cholera, and foul in calves' feet it has no equal.
It is perfectly harmless to man and beast and may
be rapidly applied with Childs' Electric Sprayer.
It is a true antiseptic and it will keep stables, cow
sheds, chicken houses and pig pens in a perfectly
sanitary condition. Convenient. Cheap. Practical.



Mr. Jacob Steibel, Supt. to the Hon. John E. Parsons, Lenox, Mass., says: "I have used
So-Bos-So Kilfly with good results. It is a comfort to both man and beast at milking time."
Ask your dealer for SO-BOS-SO or send \$2.00 for 1 gallon can and sprayer complete, express
paid to any point east of Mississippi river.
CHAS. H. CHILDS & CO., Sole Mfrs., 18 LaFayette Street, UTICA, N. Y.



Chicago and the receipts from the country
are less than 25,000 bushels of No. 2 corn
per day, while this short interest for July
is supposed to be all the way from ten to
fifteen million bushels. This is a great
game and somebody will lose or make lots
of money. No. 3 corn in Chicago sold at
20c per bushel less money. It is just as
good for all practical manufacturing or
feeding purposes but it can not be deliv-
ered on contracts according to board of
trade rules, so the farmer will not receive
much benefit from this corn corner.

Wheat recovered somewhat from the de-
cline of the last few days, and at the
close of to-day's session was up a cent
above the opening. The wheat movement
is delayed by the continuous rains and re-
ceipts are generally in a poor condition.
So far, the receipts of wheat in Kansas
City have been from the Indian Territory,
Oklahoma, southeast Kansas and south-
west Missouri. The wheat belt of Kansas
has not yet begun marketing its surplus.
Markets closed strong at quotations noted
below:

Chicago.—No. 2 red wheat, 75@75½c; No.
2 hard winter wheat, 75c; No. 2 corn, 85c;
No. 3 corn, 64c; No. 2 oats, 49c.
Kansas City.—No. 2 red wheat (old), 72c;
No. 2 red wheat (new), 70c; No. 2 hard
wheat (old), 72c; No. 2 hard wheat (new),
71c; No. 2 corn, 84½c; No. 2 white corn,
85½c; No. 2 oats, 48c.

List of Farmers' Institutes.

July 17, Overbrook—Prof. D. H. Otis,
Mrs. H. Calvin, E. W. Westgate, Master
State Grange, Aaron Jones, Master Nation-
al Grange.
July 18, North Topeka—Aaron Jones.
July 19, Jarbala—Aaron Jones.
July 21, Cadmus—Aaron Jones.
July 22, Mantey—Aaron Jones.
July 23, Olathe—Aaron Jones.
July 24, Lyndon—Aaron Jones.
July 24, Wellsville—Aaron Jones.
July 25, Madison—Aaron Jones.
July 26, Arkansas City—Aaron Jones.
July 28, Florence—Aaron Jones.
July 29, Kirwin—Prof. Albert Dickens.
July 16, Burlingame—Prof. H. F. Roberts
and Prof. J. T. Willard.
July 23, Sibley—Prof. Ed. H. Webster,
Prof. A. T. Kinsley.

The July Cosmopolitan seems to be al-
most equally divided in interest between
men and women. "An Experiment in Do-
mestic Finance" is another entirely novel
article which will appeal to women, while
some twenty pages devoted to the "Cap-
tains of Industry" will receive the consid-
eration of men in all classes of business.
The Cosmopolitan has undertaken to pre-
sent a series of brief sketches of the men
who are leaders in finance, manufactures,
and commerce, not prepared in an offhand
way, but by writers of the greatest abili-
ty who have an exact knowledge of their
subjects. The series thus far produced has
attracted the widest attention. The indus-
trial changes which have of late been oc-
curring with such rapidity, have the wid-
est possible interest for all classes. The

knowledge of these men, their derivation,
leading characteristics and weaknesses
throws much light upon the news of the
day in which their names constantly recur.

Sam Houston and David Crockett are
more picturesque and better known names
than the rather commonplace one of
George Rogers Clark, yet none other of
Cyrus Townsend Brady's "Border Fights,"
the stories of whose fights he is writing
for McClure's Magazine, has a more sig-
nificant place in the history of our coun-
try than that of the man who won and
held the "Great Northwest" for the Union;
and no deed of heroism, not even the de-
fense of the Alamo, excels that of the lit-
tle band of 170 men who, in February,
1779, captured Vincennes on the Wabash
from the British, and whose story is splen-
dently told by Mr. Brady in the July Mc-
Clure's. Arch-deacon Cyrus Townsend
Brady was formerly rector of the Episcopal
church at Manhattan, Kans.

The Kansas Farmer has just perfected
arrangements by which it can supply the
Irrigation Age to its subscribers at a cost
of \$1.50 per year for both papers. The Ir-
rigation Age is up-to-date in every respect
and is the pioneer journal of its kind in
the world. Since the passage of the irri-
gation bill by Congress this journal will
have the prestige of being in reality, al-
though not officially, the representative
journal of the irrigation interests to even
a greater extent than heretofore. Send
your \$1.50 to the Kansas Farmer for a re-
newal of subscription and we will send
you the Kansas Farmer and the Irrigation
Age both for one year.

While the press has presented an endless
number of illustrations of the Mount Pelee
disaster, the illustrations in the July Cos-
mopolitan, printed on fine paper with the
most careful art, give a clearer idea of
just what that disaster means than any-
thing hitherto presented.

Notice.

To All Whom It May Concern:—Notice is
hereby given that on the 8th day of July,
1902, a charter was duly filed in the office
of the Secretary of State of the State of
Kansas, by the undersigned, incorporating
the Kansas Union Life Insurance Com-
pany, for the purpose of transacting the
business of life insurance.

The names and residences of the Direc-
tors are as follows:
Chas. J. Devlin, Topeka, Kans.; Samuel
T. Howe, Topeka, Kans.; Alpheus K. Rod-
gers, Topeka, Kans.; Joab Mulvane, Tope-
ka, Kans.; P. I. Bonebrake, Topeka, Kans.
The place of business is Topeka, Kans.
CHAS. J. DEVLIN,
SAMUEL T. HOWE,
ALPHEUS K. RODGERS,
JOAB MULVANE,
P. I. BONEBRAKE.
Topeka, Kansas, July 9, 1902.



A RECORD BREAKER.

The long list of new patrons that
were influenced by the experience of
their neighbors to ship us their cream
in May, and the sudden change of
hundreds to this market since pay day
in June, all testify to the merits of
our system and is farther proof that
these cuts represent the keys that un-
lock the safe containing ALL the
money that is to be had in the dairy
business.

They are the Corner Stones of a modern, live, wide-
awake, up-to-date 20th Century Creamery Business



They are the gateway to the Dairy-
man's Klondike which he has been
seeking for forty years as he wan-
dered through the gathered cream
and skimming-station wilderness.
They remove difficulties and make
dairying profitable. This is the busi-
ness. This is the year. This is the
plan, and we have the market.
Remember,

We Want Your Cream

Write to us immediately. We are "The
Pioneers" of the plan that increased
the revenue of the Kansas and Mis-
souri Dairyman one-quarter Million
Dollars in one Month.

BLUE VALLEY CREAMERY CO.,
ST. JOSEPH, MISSOURI.



The Poultry Yard.

Poultry Notes.

See that the poultry has shade. There is an unlimited demand for good poultry.

Well-bred layers must be well fed if they are to do their best.

Fowls enjoy a cool drink on a hot day just the same as you do.

Before summer is gone it will be well to prepare for fall and winter.

Clean out the nests occasionally and put in new nest material, burning the old.

Little chicks will do better with a variety of feed than with corn-meal only.

He who would produce the best birds must first have a good class for starting in the business.

Cleanliness is needful in the poultry house and yard in hot weather as well as during the winter.

Do not leave any feed lying around after the chicks get enough of any one kind of food given them.

Chickens are like human beings in many ways, and they like to be surprised with palatable food.

Earthen or metal dishes if used as feeding dishes can be kept sweet with less work than can wooden troughs.

Never feed the poultry at the back door unless you want them to make that their feeding ground—and you do not.

There is not the proper consideration given to the importance of furnishing the poultry good, clean, pure drinking water.

Breeding from our best layers systematically is, to our way of thinking, the only sure way of increasing the profits.

Hens as well as horses know the sound of the opening of the feed box and expect their meal whenever they hear it.

Lice remedies used on the inner surface of brood coops will give the lice a hard tussle to even get safely through one night.

It is an acknowledged fact that the surest and most profitable source of income for the majority of poultrymen is the sale of eggs.

For about a week or ten days before killing, the feed of the poultry should be confined to grain so as to improve the flavor of the meat.

Always send your eggs to market in a clean and attractive condition. Dirty eggs bring 2 or 3 cents below the price of clean ones in the city markets.

"What is a good hatch from eggs bought at a distance?" asks a subscriber. We wouldn't find fault if we got as many as seven chicks.—Commercial Poultry.

Keep your poultry house perfectly clean well white-washed, warm, dry and well ventilated, and then note how much better returns you secure.—Texas Farmer.

Make a good shade for your fowls if you haven't trees for them to lounge under. Shade and plenty of water are great helps to the poultry-keeper during the hot months.

The very wet weather the Middle West is having calls for the greatest care to keep the chicks in good health. Keep the coops clean and the chicks dry, if possible.

Don't forget that poultry house. Remember comfort is all the hen cares for. Get that first and then add anything in the way of ornament you feel able to indulge in.

One of the most important points in mating your pen for egg production is the selection of the male birds. Use none but well-developed, vigorous sons of your very best layers.

Judicious feeding, properly regulated heat, plenty of fresh air and exercise, will keep your brooder chicks growing continuously. All these, however, need your personal and careful attention.

It is a good plan to have the dust bath in summer in a shady place. The fowls enjoy freshly spaded ground for dusting in hot weather, and it is well to make a new dusting place once a week.

Geese are less liable to disease than any other fowl, and can be profitably raised in large numbers. The Toulouse is the best general-purpose breed, being docile and too large and clumsy to fly.

It is the active hens and pullets that lay the eggs. Where hens and pullets are kept running together it is difficult to determine or locate the drones of the flock—those that do little or no egg laying.

Imports of eggs for nine months, ending March 31, 1902, were 166,515 dozen, against 97,342 same time a year ago. Exports were 2,311,182 dozen and 2,897,598 dozen respectively, for the same periods.

One of the most fruitful means of failure may be found in starting with too many fowls and in building too extensively in the beginning. Another mistake is in starting with too many breeds or too many of one breed.

Don't worry about the thunder storms. We have a hatch of eleven chicks from thirteen eggs that were shipped 700 miles, and we have had some dreadful thunder storms recently.—Commercial Poultry.

The Iowa man who said he "had sold his last 8-cent egg, laid by a scrub hen, fed one corn alone, watered in a cow tank in the barn yard and permitted to study astronomy on cold winter nights" is on the right track.

There is nothing to prevent you, if you so desire, from improving both the egg yield and exhibition points of your strain, but the process will be much slower. The results, however, will be more pleasing in the end.

If a hen lay an egg a week the year through, it will just about pay for her feed, and every extra egg will yield a profit. The hen, therefore, that lays three eggs a week will pay double the profit of the one that produces but two eggs.

If a number of old male birds are kept over they should not be allowed to run with the hens and pullets. They are an expensive nuisance, and unless they possess special value as breeders they should be disposed of as soon as possible.

Don't forget about the lice. There may be thousands in your poultry house before you find one. Look for them and take measures to prevent them from getting started. Lice-killers are plentiful and cheap and they save a lot of money by preventing losses.

Trouble lurks in the watering vessels in summer unless strict cleanliness is observed and the water is frequently thrown out and replaced with fresh. Wash the vessels out once a day, empty the water out at night; and it is then a good time to do the cleansing. Scald out thoroughly once a week.

Vitality of fowls will run down just as it will in a person when extreme heat comes and it will pay to prepare for such conditions. Where there is an abundance of shade no more preparations will be necessary than to furnish a good dust bath somewhere in the shade where the hens will loiter in the heat of the day.

It is the flock that receives careful care in summer that does well in fall and winter, when eggs command high prices. If there is any season when neglects are costly it is in hot weather. It is at this season of the year when the "little things" timely observed and promptly looked after forge the chain of success in poultry-keeping.

Great productiveness in our hens is a trait which can be easily fixed by breeding. The principles governing our breeding are the same as those which apply to all other classes of animal breeding; it is only the application that differs. With the fancier it is feathers; with us it is eggs; both can be developed to perfection by the same principles of breeding.

By properly feeding our hens, we can obtain results which a less careful poultryman will not, but no matter how well we understand this difficult part of the work, and no matter how careful we are in making use of our knowledge in this direction, it will be observed that

in every flock of pullets raised, fed, and cared for in the same manner and under the same conditions, that several will lay almost double the number of eggs that others will in the same pen.—Moral, set the eggs of the good layers.

My chicks, writes a Sullivan County (New York) man in American Agriculturist, have gapes every year. I never had much success with horsehair, but air-slaked lime seems to cure every time. I used it as follows: Take a large can with open top (a pail will answer) and when the chickens first begin to sneeze put them in the can and place a thin burriap bag over it. Then put some fresh air-slaked lime on the bag and shake the can until the chickens inhale the lime dust thoroughly. If necessary repeat in about two days.

Round Trip Homeseekers' Excursions to the West.

The Great Northern Railway sells homeseekers' tickets to Manitoba, Montana, Washington, and all points in the West, on first and third Tuesdays of July, August, September, and October, at rate of about one-third fare for the round trip. Information from all ticket agents, or F. I. Whitney, G. P. & T. A., St. Paul.

PILES

Fistula, Fissure, all Rectal Diseases radically and permanently cured in a few weeks without the knife, cutting, ligature, or caustics, and without pain or detention from business. Particulars of our treatment and sample mailed free.

Mr. M. McCoy, Gogancan, Kans., Captain Company A, Fifteenth Indiana Infantry, writes: "Hermit Remedy Company, Dear Sirs:—I have doctored for piles since the Civil War—thirty-six years—and am now glad to report that after using your treatment for a few weeks I am completely cured. I believe you can cure any one, for a man could not be in a much worse condition than I was and live, and I am duly grateful to you. Respectfully,

"M. MCCOY."

We have hundreds of similar testimonials of cures in desperate cases from grateful patients who have tried many cure-alls, doctors' treatment, and different methods of operation without relief.

Ninety per cent of the people we treat come to us from one telling the other. You can have a trial sample mailed free by writing us full particulars of your case. Address, HERMIT REMEDY COMPANY, Suite 736, Adams Express Building, Chicago, Ill.

POULTRY BREEDERS' DIRECTORY.

WHITE WYANDOTTES—Exclusively. Eggs for hatching, 50 cents per 15. Mrs. E. F. Ney, Bonner Springs, Kans.

NO MORE PUPS FOR SALE until after May 1, but can furnish B. P. Rock eggs from large, vigorous, and finely-marked birds; 15 years' experience with this breed. Send me your order; you will be pleased with results. \$1.50 per 15.

W. B. WILLIAMS, Stella, Neb.



DUFF'S POULTRY

All our Fine Breeders of this season, also Spring Chicks for sale after the first of June. Barred Rocks, White Rocks, Buff Cochins, Partridge Cochins, Light Brahmas, Black Langshans, Silver Wyandottes, White Wyandottes, Silver Spangled Hamburgs, S. C. Brown Leghorns, and Belgian Hares. Buy the best now at the lowest prices. Write your wants. Circulars free. Choice Breeders and Show Birds.

A. H. DUFF, Larned, Kan.

The Stray List.

Week Ending June 26.

Cherokee County—S. W. Swinney, Clerk.
HORSE AND MULE—Taken up by R. O. Martin, 4 miles southwest of Columbus, June 13, 1902, one gray horse, 12 years old, and one black yearling mule.
Butler County—H. A. J. Coppins, Clerk.

HEIFER—Taken up by William Dill, in Benton tp. (P. O. Benton), on his own premises, April 20, 1901, one black yearling heifer, white face white belly and white feet, branded D on right hip.
HORSE—Taken up by James Parks, in Benton tp. Butler Co., Kans. (P. O. Benton, Kans.), one black gelding, about 7 years old, 16 hands high, right hind foot white, a few white hairs on face and nose, face a little Roman.

Week Ending July 3.

Sumner County—W. E. Wood, Clerk.
MARE—Taken up by J. W. Whitacre in Valverde Township June 6, 1902, one light bay mare about 5 years old 14 hands high, great scar on left shoulder, is lame, white left fore foot, and some white on forehead, branded on left hip and on left shoulder; valued at \$18.
Cherokee County—S. W. Swinney, Clerk.

MARE—Taken up by John Colclough in Shawnee tp., on June 19, 1902, one bay pony mare, 4 years old, 13 hands high, weight 700 pounds, right fore foot and right hind foot white, star in forehead and collar marks; valued at \$20.

Pottawatomie County
CATTLE—Taken up by T. J. Eddy, in Grant tp. (P. O. Havensville, Kans.) May 24, 1902, one 2-year-old heifer, white face, Dunlap; valued at \$24. One 1-year-old black steer; valued at \$17. One one-year-old black steer dehorned; valued at \$17. One 1-year-old blue speckled steer; valued at \$14.

REGISTERED DUROC-JERSEY SWINE—Popular strains. For Sale: Fall gilts and 1902 spring farrow pigs, both sexes. H. C. Riggs, Rural delivery and telephone, two miles northeast of Wetmore, Kansas.

Special Want Column

"Wanted," "For Sale," "For Exchange," and similar 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 number counted as one word. Cash with the order. It will pay. Try it.

CATTLE.

FOR SALE—Ten choice Duroc-Jersey gilts, bred for fall farrow. A. G. Dorr, Osage City, Kans.

D. P. NORTON, Dunlap, Kansas, has a few young bulls, by British Lion, fit for service the coming season.

FIVE HEREFORD BULLS FOR SALE—Never used in a herd, they are in fine fix, at a bargain for cowmen. O. L. Thistler, Chapman, Kans.

FOR SALE—Six good Shorthorn bulls, four of them straight Crutcherhanks; prices reasonable; now your chance to get a good individual. H. W. McAfee, Topeka, Kans.

SWINE.

40 choice Duroc-Jersey spring pigs at \$10 each. Address C. Dorr, Peterton, Kans.

PEDIGREED POLAND-CHINAS—\$5 each; choice Shorthorn cheap. Send stamp for booklet. M. C. Hemenway, Hope, Kans.

CHESTER WHITE BOAR—For sale, 20-month boar by Eclipse. Sure breeder and guaranteed to be all right. Call at Seabrook, or address Robert Stone, 501 Jackson Street, Topeka, Kans.

HORSES AND MULES.

FOR SALE—Big, black jack, meaty nose, 4 years old, very cheap; reasons for selling—have sold my farm. G. A. Stiles, Burns, 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 200 printed farm and ranch descriptions in 5 counties, 55 m. from K. C. Prices, maps, statistical book. Write G. Winders, Ottawa, Kans.

FOR CORN, alfalfa, and wheat land, ranches and farms, write to Charvoz & Co., Emporia, Kans.

160 Acres, 7-room house, timber, bottom land, well located. Buckeye Agency, Agricola, Kans.

SOME BARGAINS in farms and ranches. Correspondence solicited. J. M. Patten and Co., Dighton, Kans.

SEEDS AND PLANTS.

SIBERIAN MILLET—Best for late sowing, bushy; German, \$1.15; cane, \$1. Kadit-corn, 80 cts.; Dwarf Essex rape, 8 cts. pound; turnip, 35 cts. Trumbull & Co., Kansas City, Mo.

CANE-SEED—KAFIR-CORN—Choice white Kadit choice cane-seed. All home-grown, thoroughly tested and warranted to grow; \$2 per 100 lbs., sacked in jute sacks f. o. b. Kremlin, O. T. M. T. Williams & Co.

PATENTS.

J. A. ROSEN, Patent Attorney
418 Kansas Avenue, Topeka, Kansas

PERSONAL.

WEALTHY and respectable young widow, without children or near relatives, wants true honest husband. Address Grand, Forbes Block, Chicago, Ill.

WIDOWER—Independently wealthy, has no children or near relatives, wants cheerful, home-loving wife. Address Hill, 193 Washington St., Chicago, Ill.

MISCELLANEOUS.

CLOVER LEAF FAMILY SCALES—We have on hand a limited consignment of the celebrated Clover Leaf Family Scales which we are closing out at cost to make room for farm scales. First callers will get the bargains of P. W. Griggs & Co., 208 West sixth St. Topeka, Kans.

WANTED—To take on shares, ten head of good dairy cows, for a term of three years; will breed registered Shorthorn bulls. John G. Howard, Morgan Chase Co., Kans.

SCOTCH COLLIES—A few fine pups ready to ship from Sunflower Collie kennels; male, \$6; female, \$4. A. P. Chacey, Route 1, North Topeka, Kans.

FOR SALE CHEAP—Pedigreed Scotch Collie pups. W. H. Richards, V. S., Emporia, Kans.

WOOL WANTED—Will pay highest market price for wool. Sacks for sale. Topeka Woolen Mill Co. Oakland, Kans.

THE BEST CUP OF COFFEE and plenty of good things to eat. Farmers' trade a specialty. Come and get something good. The Two Minute Restaurant, 532 Kansas Ave., Topeka, Kans.

Bale your own hay, millet, sorghum, pea-vine, etc., with the only perfected **Little Giant Press** CAPACITY hand power on the market. Feeds in charges, finishes perfectly smooth and compact bale; standard size; either light or heavy. Write for descriptive circulars.

Little Giant Hay Press Co., Dallas, Texas.

ANGORA GOATS FOR SALE.

I have one thousand head of Angora goat for sale at Morris, Kansas, which place is located ten miles from Kansas City, on the Santa Fe railroad. Would be pleased to have you call and see them. Correspondence solicited.

W. T. MCINTIRE,
221 Live Stock Exchange, KANSAS CITY, MO.



Everybody

Who suffers from Bodily Aches and Pains, such as Rheumatism, Gout, Lumbago, Headache, Neuritis, Sciatica, Sprains and Bruises

Should Use

St. Jacobs Oil

It Conquers Pain

Price, 25c and 50c.

SOLD BY ALL DEALERS IN MEDICINE

The Apiary.

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

How to Prevent a Production of Drones.

Ordinarily and naturally, bees rear an over production of drones which is a detriment to the best results in honey crops. The amount of drones in the hive depends upon the amount of drone-comb. If left to build their own comb, the bees build a large portion of it drone size, and this is usually filled with brood the following season. If this drone-comb is cut out and removed, the bees will build the same back again, so that they are checked only for the present.

Foundation honey-comb prevents the building of drone-comb, so that the use of foundation is a complete remedy and a prevention of drones in the hive. Every beekeeper of note uses this foundation, not solely for this purpose, but for the general good derived from it, for the building of foundation is the biggest half of the work that bees have to do to fill the comb and a hive of bees on a full set of frames filled with foundation, is worth more than double one without foundation.

Drones are idlers, and except for the purpose of fertilizing the queens, they are absolutely worthless, and a detriment to the best welfare of the colony. Traps of different kinds are used at the entrance of the hives to destroy them, but the best way to prevent them is to use foundation comb.

Bees build drone-comb not only for the production of drone bees, but for the storage of surplus honey, and the drone-comb will be found in almost all parts of the hive farthest away from the brood chamber. The queen does not lay eggs in the drone-comb, until the colony becomes strong, and drones do not appear early in spring. If a colony is queenless, it may retain its drones while it exists, but all colonies in poor condition kills their drones during late summer or earlier, if the honey flow is a failure.

Prevent the Bees from Robbing.

Bees frequently do great damage to themselves and other colonies by robbing. The worst cases of this kind generally occur just after the close of the honey flow in the spring. Bees seldom attempt to pilfer and steal during a honey flow, but when they become idle, they are almost certain to find a colony that is not in condition to defend its stores; they will carry off the entire honey that such hives contain. There is not only danger of the loss of the colony being robbed, but the bees become so enthusiastic over the business that they are liable to fall on any colony, any and either overpower them sufficiently to secure their honey, or to produce such a fight that large numbers of them are killed.

If we are particular to have every colony in proper condition we will never have them be troubled with robbers, for without doubt its cause is that the colonies are very weak, or have no queens. The pasture is usually the principal cause of loss by robbing, and this we can easily prevent by keeping every colony supplied with queens, or if queens are not at hand, let us give these queenless colonies a frame of a brood from some other colony, and rony, which will keep them in good shape until they rear a queen of their own. At the close of the honey harvest three years after much swarming, many colonies will be found without queens, from the fact that only a few of the virgin queens become fertilized and get back to their hives properly, and turn out to be good fertile queens.

We should thoroughly inspect each colony at this period, and find which colonies have no queens, and supply them with a queen. If this is done carefully, we will experience little trouble with robbing. If it is found that a colony is being robbed, it should be checked immediately, and perhaps the easiest and quickest method is to throw a large blanket over the entire hive, thus completely covering it up. Do not fasten the blanket tightly around it, but throw it over loosely so that the bees will have necessary ventilation.

"Under the Turquoise Sky."

This most fascinating, clear and interesting description of Colorado will be sent free by E. W. Thompson, A. G. P. A., page 721 three by Rock Island Route, Topeka, Kans. nearly every "Camping in Colorado" free, if you want it. Gives full details for the inexperienced. Information about Colorado hotels and boarding houses gladly furnished. It will be worth your while to know the details of the cheap rates to Colorado effective this summer by the Rock Island. A postal to the above address will secure this information and literature.

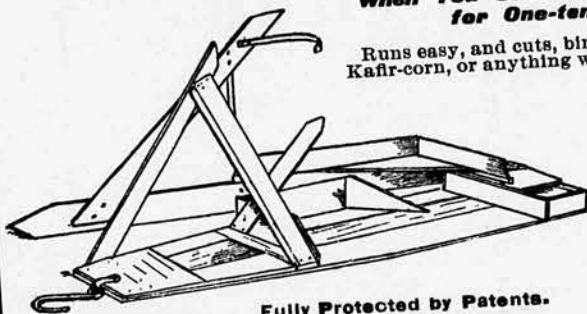
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the advantages of long experience, financial standing, superior lofting and storage and intimate and close touch with the great wool markets of the country are secured by the people who consign their wool to us. Liberal advances made on consignments. Sacks free to our patrons. Ours is the largest Wool House in the West. Send for a copy of our Wool Circular, which will keep you posted on the conditions of the market.

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When You Can Purchase a Sled-Cutter for One-tenth the Price.



Fully Protected by Patents.

Runs easy, and cuts, binds and gathers corn, cane, Kafir-corn, or anything which is planted in rows.

Ask your implement dealer for it, or send

\$12.00

Green Corn Cutter Company, Topeka, - Kansas.

\$1,000 FOR \$1.00

Pay us \$1.00 a week for 20 years and we will guarantee you \$1,000. You also are entitled to dividends on your money and if you die after the first annual payment is made, we pay your estate \$1,000 at once.

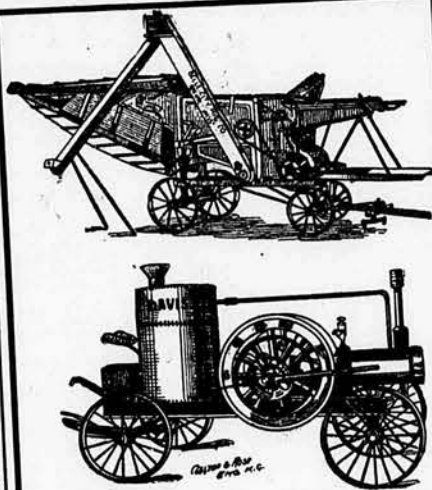
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PALMER S. WILSON, Mgr., THE "ROYAL UNION", Care of Kansas Farmer.

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My name and address is.....

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Little Columbia Thresher Davis Portable Engine

FOR THE FARM.

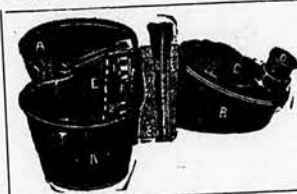
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Write for catalogs. John Deere Plow Co., Kansas City.

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from your dealer or write us. We Guarantee Every Fountain. If not satisfactory return and get another, or your money back. We make this guarantee to every dealer. VERY CHEAP THIS YEAR.

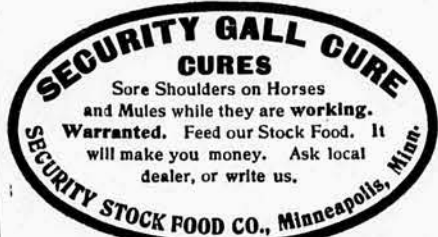


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ALLIGATOR BRAND ROOFING

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SECURITY GALL CURE CURES

Sore Shoulders on Horses and Mules while they are working. Warranted. Feed our Stock Food. It will make you money. Ask local dealer, or write us.

Read our Atlas offer.

BRAND NEW STEEL ROOFING

Bought at Rock Island Sale. Sheets either flat, corrugated or "V" crimped. No tools except a hatchet or hammer needed to lay the roofing. We furnish free with each order enough paint to \$1.75 cover and nails to lay. Price per square, \$1.75. A square means 100 square ft. Write for Free Catalogue No. 61 on General Merchandise. Chicago House Wrecking Co., West 302d and Iron Sts., Chicago, Ill.

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THE PLACE TO GO.

Think of a round-trip rate of only

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To Denver, Colorado Springs (Manitou), and Pueblo.

On certain days in June, July, August, and September, via the

Great Rock Island Route

Write for books entitled

"CAMPING IN COLORADO," "FISHING IN COLORADO,"

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"UNDER THE TURQUOISE SKY."

The Camping book tells how, where, and at what cost parties of two, four, and six can enjoy an inexpensive vacation in that delightful climate.

E. W. THOMPSON, A. G. P. A., Topeka, Kans. JNO. SEBASTIAN, G. P. A., Chicago.

The Colorado Flyer via Santa Fe.

A Convenient Train for Summer Tourists.

Composite Car, Palace Sleepers, Free Chair Cars, Observation Sleeper, Cafe Car between Colorado Springs and Denver. DAILY, BEGINNING JUNE 1.

Leave Topeka 8.35 p. m. Arrive Colorado early next morning. This train is in addition to the Colorado Express leaving Topeka 11.50 a. m., and arriving Colorado following morning, and carrying free Chair Cars, Pullman Sleepers and Observation Car. Reduced rates to Colorado and Utah daily from June 1 to September 15. For particulars and copy "A Colorado Summer," apply to

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T. M. JAMES, P. O. Building North Topeka.

5 TON WAGON SCALES \$35.00
 SENT ON TRIAL FREE
 CATALOGUE FREE
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 makes your wire fence sag, it isn't the PAGE.
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INTERCHANGEABLE SYSTEM.

Describe work to be done and we will send specifications of what your power will cost you.
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 Gear back and direct stroke windmills, steel tanks, un-gear and triple gear feed grinders. Write for our free catalogue.

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GALVANIZED WIRE—AT BARGAIN PRICES.
 Fifty car loads of new galvanized wire, in short lengths. Never was used. Comes from 6 to 10 gauge. Put up 100 lbs. to a coil and only one size wire to each bundle. Prices range from \$1.40 to \$1.90 per 100 pounds. Our Free Catalogue No. 41 for the asking. We handle all kinds of supplies from Sheriff's and Receiver's Sale. **Chicago House Wrecking Co.** West 25th and Iron Sts., Chicago.

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The B. V. Sweep and Power Feed Mills; The Imp. B. V. Safety Corn Harvesters, Oak Stoves, and Stove Ranges, Structural Iron Work, Window Weights, Cast Thresholds, Chimney Caps, etc.
 WRITE TO US. **MANHATTAN, KANSAS.**

Your Summer Outing.
 Unite health, rest, pleasure and comfort on the handsome, luxurious **Steel Steamship MANITOU** (FIRST-CLASS ONLY.)



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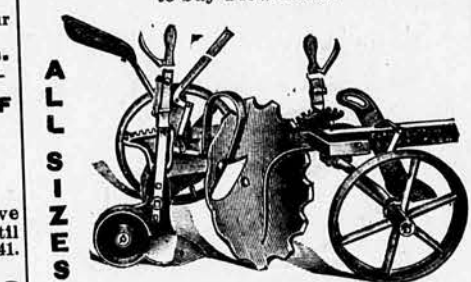


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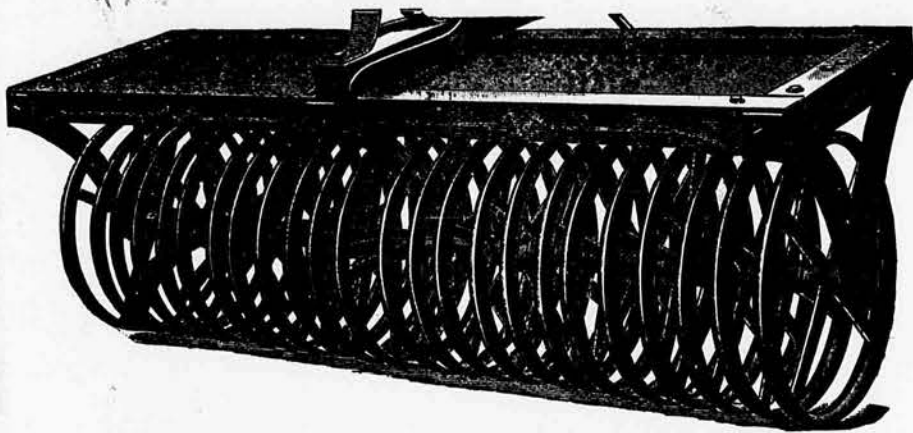
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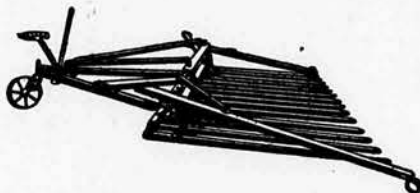
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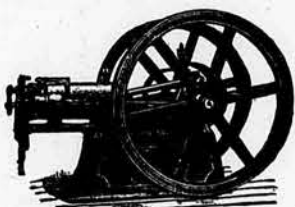


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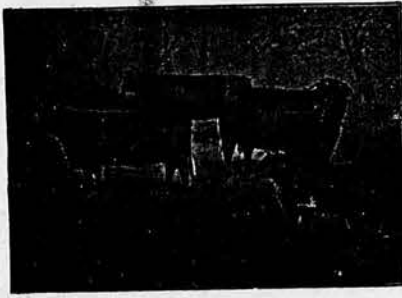
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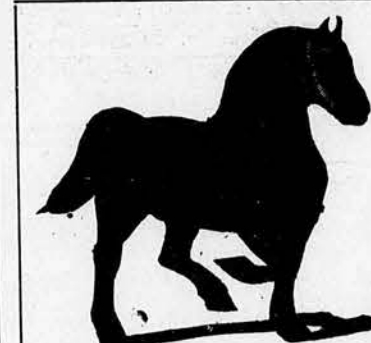


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