



## The Stock Interest.

### THOROUGHbred STOCK SALES.

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

JUNE 16.—L. A. Knapp, Short-horns, Maple Hill, Kas.

### THE HORN-FLY PEST.

Recent reports from various parts of the State verify the appearance of the horn-fly, and very naturally observing farmers and stock-raisers are seeking information concerning its history, habits and the most practical and least expensive way of relieving domestic animals, more especially cattle, of the evil results of this predatory enemy.

From the most reliable information concerning the appearance of this pest in the United States, we learn that it was doubtless brought over from Europe—from either Belgium or France, with imported cattle, shortly prior to or during the year 1886, and immediately thereafter it appeared in several counties of New Jersey and in southern Pennsylvania in August and September of 1887. It has, in accordance with one of the laws of evolution, in the great struggle for existence, become rapidly acclimated and suited to its new environments, thereby reproducing itself very rapidly, and during the few short years of its existence in this country extended its predatory warfare from the Atlantic, including Canada, to the Rocky mountains. The celebrated French writer, Railliet, in "Elements de Zoologie Medicale et Agricole," writes of the fly, that it belongs to the *Haematobia* or *Lyperosia*, both of which genera were split off from *Stomoxys*. "That they are very small flies which live in the fields and seldom penetrate into the stables. As their name indicates, they are at least as blood-thirsty as *Stomoxys*. They attack the animals in the pastures, particularly cattle, and they often collect in great numbers upon a single individual, with their wings expanded, working through the hairs to pierce the skin."

The name horn-fly, which has been adopted in this country, is fairly well appropriate, but in no instance has it been established that any injury is done the horn of the animal, as the fly only collects there as a resting place and for better security, thereby avoiding the defensive motions of the animal's head and tail.

In size it is not so long as the common house fly, more slender, and when not feeding, its wings lie close to its body. Before perforating the skin preparatory to sucking, its wings are slightly elevated and are held out from its body at an angle of about sixty degrees. The legs are spread out widely, in which position it works its way through the hairs close to the skin, inserting its beak in nearly a perpendicular direction. The observer will notice that the hairs of the animal that apparently cover the fly while feeding does not impede its hasty retreat when avoiding an effort of the animal to rid itself of its tormentor, and no sooner has the defensive motion ceased than the fly is back again. Toward nightfall they settle on the base of the horns and back, between the head and fore shoulders, where neither motion of head or tail will dislodge them.

The female fly deposits her eggs in the freshly-dropped dung, and the usual period from hatching to the matured fly, in this latitude, from April to frost-time, is about two weeks. When one considers that from ten to fourteen generations are produced during the season, it is not difficult to understand their rapid increase or the wide-spread area that they have reached since their first introduction into the United States.

In color, the adult fly presents something of a yellowish-brown cast, when a comparison is made with the common house-fly, yet, when viewed at random, may be said to be a dark leaden or grayish-black.

To what extent does the ravages of the pest interfere with the value of the cattle, to say nothing of their comfort, is perhaps one of the most important features to be considered by the stock-grower.

Reports show that stock cattle, when

turned out to pasture, do not gain in flesh as they should. Cases are reported where the cattle should have gained 200 pounds and only gained fifty, and where the milk product of cows fell off from 25 to 50 per cent.

The Secretary of Agriculture at Washington, D. C., in his "Report (Vol. II., No. 4) on Insect Life," says: "They reduce the condition of stock to a considerable extent, and in the case of milch cows the yield of milk is reduced from one-fourth to one-half. It is our opinion that their bites seldom produce sores by themselves, although we have seen a number of cases where large sores had been made by cattle rubbing themselves against trees and fences in an endeavor to allay irritation caused by the bites; or in spots where they could not rub, by licking constantly with the tongue, as about the bag and on the inside of the hind thighs. A sore once started in this way will increase with the continued irritation by the flies and will be difficult to heal."

The next important point is a remedy for the evil. A number of experiments that were tried in the field, consisting of train oil alone and train oil with a little sulphur or carbolic acid added, will keep the flies away for from five to six days. The adding of the carbolic acid in a small proportion has a tendency to hasten the healing of sores. Common axle grease will answer nearly as well, while fish oil answers the purpose best. The most convenient and perhaps equally effective remedy yet reported is the use of the standard kerosene emulsion, when it is sprayed upon cattle by means of a knapsack spraying pump. The emulsion must be diluted ten times and is better if mixed with one part of a water extract of tobacco waste (one pound of tobacco to one gallon of water) preparation. It gives almost perfect immunity for a period of three days, and two treatments or sprayings per week will relieve the stock from annoyance and remunerate the owner for his pains and trouble. Mr. W. B. Alwood, of Agricultural Experiment Station, at Blacksburg, Va., states that he uses a knapsack pump fitted with a "cyclone" nozzle, and does the work just after milking in the morning. It requires but one minute per cow and uses one to two pints of the liquid for each animal.

### Improvement in Kansas Sheep.

In the Solomon valley, Kansas, sheep-raising has been followed with varying success ever since the settlement of the valley, and as good sheepmen are to be found in that section of the State as anywhere in the West. During the depression a number of sheep-owners abandoned the business, while others staid by their flocks and gave special attention to making the flocks more profitable until finally success crowned their efforts. Among this number is Mr. J. N. Grau, of Asherville, Mitchell county, who has reported progress to the KANSAS FARMER, together with samples of wool now grown.

The samples sent to this office by Mr. Grau consist of as fine quality of delaine Merino wool as was ever produced in this country. Sample 1 is from a registered Dickinson-Delaine ram weighing 170 pounds, and clipped fifteen pounds of 365 days growth. This ram ran with the flock and sired 100 lambs. This is a model fleece of clean, white wool, strong fibre of three and one-half inches staple. Sample 2 is from a registered Dickinson-Delaine ram weighing 200 pounds. The fleece is 357 days growth and weighs fifteen pounds, length of staple three and one-fourth inches, and contains a little more oil and yolk than sample 1. This ram sired 100 lambs. Sample 3 consists of samples from four Delaine-bred ewes from 4 to 6 years of age. The length of staple ranges from three to four inches of extra grade wool. The weight of ewes is from 115 to 140 pounds and the fleeces weighing thirteen to fifteen pounds. Each ewe with lamb by her side. Sample 4 is from registered Dickinson-Delaine ewes with lambs by their side. Average weight of ewes 120 pounds. Fleece twelve to fourteen

pounds; average length of staple four inches. Sample 5 is a 100-pound lamb with thirteen months' fleece weighing fourteen pounds of three and one-fourth inches staple.

These samples show but little vegetable matter at the tip and the greater portion of the fibre is entirely free from vegetable matter or yolk and show only the natural oil. Altogether the wool is of the best quality and will show the lightest shrinkage of any fine wool the writer has ever seen in the State.

Of this flock the owner, Mr. Grau, says: "I have bred off the wrinkles because the Delaine Merinos are so much better breeders, and for mutton are far superior to the wrinkly sheep. I have raised the small, wrinkly kind in the past but do not want them again. The samples of wool sent you are from sheep running all winter in the stalk fields with only one bushel of corn to 100 head per day, with no other feed of any kind in fair or stormy weather. Sheep are doing finely and shearing well over. Of the breeding ewes the heaviest fleece was fifteen and one-half pounds, the lightest nine pounds. The rams' fleeces averaged from fourteen to twenty-two pounds. I keep from 700 to 1,000 sheep and raised 95 per cent. of lambs this season."

The showing made is very encouraging, because this class of wool brings the highest price for domestic wools, and the mutton carcass is a very important consideration in the matter of profit. No other class of stock can make a better showing. The improvement of the class of sheep, as well as improved methods of handling, will have a beneficial effect on the farmers' material welfare, as well as enhancing the resources and possibilities of Kansas.

### The Hog During Summer.

The most delectable period of hog life is evidently when the "pigs are in the clover" during the summer. "This is the time of year," says a correspondent of the *National Stockman*, "for the farmer to remember that the hog is a grazing animal, and not keep him shut up in a nasty, muddy pen where he must wallow in his own excrement. The wise farmer knows that it does not pay to buy 6 weeks' old pigs for \$4 or \$5 a head, as they cost this spring. He can afford to breed them for a great deal less money, and at the same time raise nicer pigs than he could buy."

"I am acquainted with an Eastern dairyman who eschews sheep-raising as an auxiliary to the dairy and rears swine for an extra income. He raised 1,000 bushels of corn last season, something uncommon for a New York dairyman, which he turned into pork at a profit. This year he has a large herd of swine running in a pasture by themselves; not with the cows, as he is too wise a dairyman for that. He carries his milk to a cheese factory, and feeds the resulting whey to the hogs. They will get half of their living by grazing this summer, and to keep them in good growing order the remainder of the diet will consist of whey, with shorts and a little corn meal. Remember that all of this time they will have a clean, sweet pasture in which to run, and will have pure water to drink like the cows. The animals will grow like weeds, and their pork will be as healthy as nature can make. This gentleman is situated near a corn canning factory, and next fall he will try the experiment of buying for a nominal sum per load the fresh cobs from which the green sweet corn has been cut. He

## The County Fair

affords an excellent opportunity for the pick-pocket to get your watch. If you would be proof against his skill, be sure that the bow (or ring) is a

*Non-pull-out*

This wonderful bow is now fitted to the Jas. Boss

### Filled Watch Cases,

which are made of two plates of gold soldered to a plate of composition metal. Look equally as well as solid gold cases, and cost about half as much.

Guaranteed to wear 20 years.

Always look for this trade mark.

None genuine without it.

Sold only through watch dealers.

Ask any jeweler for pamphlet or send to the manufacturers.

**Keystone Watch Case Co.,**  
PHILADELPHIA.

THE Natural food of leather is Vacuum Leather Oil; 25c, and your money back if you want it.

Patent lambskin-with-wool on swob and book—How to Take Care of Leather—both free at the store.

Vacuum Oil Company, Rochester, N. Y.

will feed these to his swine preparatory to fattening them, and as the corn is not cut closely the green cobs ought to contain much nutriment.

"Pork is exceedingly high just now, and without doubt will bring a good figure this fall, and my friend, who is raising it in the cheap and yet wholesome manner above, is going to have a fat purse out of it. Do not consider it economy to turn your calves into the same lot with the swine. This is a mistake that a certain class of farmers are always falling into, and as a consequence they have sickly calves growing up into scrawny heifers. Do not feed offal from butchered animals to hogs, as is often done in the vicinity of slaughter houses. It is a crime against the public who innocently eat the meat so produced. If you have but one hog you are in the swine business deeply enough to be under obligation to train up that hog physically in the way he should go. About one-half of the farmers think that they are not in the swine business because they only raise enough pork for their own use. Feeling that they are not in the business, they pay but little attention to the welfare of those two or three pigs, and that is why this class of farmers eat the poorest quality of pork in the world. Nature has to make it from refuse, and odds and ends, and the hogs may be half sick and grunting around with a poor appetite for a week at a time and their complaint not be noticed.

"Consider that you are in the hog business for all that it is worth, if you own but one little pig of ten pounds weight. You will make that pig profitable then and derive healthy pork from it."

Oscillator Threshers, Horse Powers, Engines.  
JOHN S. DAVIS' SONS, Davenport, Iowa.



References:  
Metropolitan National Bank,  
Chicago,  
and this Paper.

**WOOL SHIP YOUR WOOL** Direct to market and get all the value there is in it. We receive more Wool direct from the Growers than any house in this market, and make quicker returns. If you doubt it our books will prove it, and our shippers have testified to it. Average time on returns last season was eleven days from the time each shipment was received and we handled over three hundred thousand pounds. If you want your Wool sold at its true market value and get quick returns, don't dispose of it until you write us for prices and our terms for handling, and see the testimonials of our shippers. We are not an exclusive Wool house, but handle Hay, Grain and Produce of all kinds, and will quote prices if requested and give any information wanted.

**SUMMERS, MORRISON & CO.**  
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## Agricultural Matters.

### WHY WE PLOW AND CULTIVATE.

There is considerable difference of opinion in regard to the benefits to be obtained from deep or shallow plowing; some advocating the one plan and others just as strenuously advocating the other. The facts in the case in this particular instance seem to be that "what is one man's meat is another's poison." As far as my own observation and experience extend "deep" plowing, i. e., a complete inversion of the surface soil with a turning up of a considerable amount of the cold subsoil, has in numberless instances worked a decidedly serious and permanent injury to the land, but I have never yet seen a single instance where "subsoiling" was a disadvantage. A great deal has been said in the agricultural press throughout the country about "plowing," and "plowing matches" have been the order of the day. This is as it should be, "plowing" being one of the first as well as most important operations of the farm. We all have a special admiration for a straight, smooth, completely inverted furrow, one that is even in width and even in depth, where all trash is completely covered; but although it is highly important that all farmers know just exactly how to plow, I consider it of vastly greater importance that every soil-tiller acquaint himself thoroughly with the reasons why he plows. What are the objects to be attained by plowing? Various reasons might be given why we plow, but I will confine myself to a few of the more important of these: (1) To bury a surface growth of sod under the soil, where by its decay it will add its elements of fertility to the general stock of plant food already in the soil. (2) To kill weeds, thereby obtaining a clean surface so that crops may enjoy undisputed and sole possession of the soil. (3) The thorough pulverization of the soil, so as to make a perfect seed-bed for the young and growing plants. (4) To break the crust after each rain, so that the land may imbibe its full share of heat, air and moisture.

After the ground is all well prepared and the crops all planted it becomes doubly necessary to know how to plow, when to plow, and why it is necessary to plow at all. In whatever manner the ground may have been prepared for the crop, whether by plowing deep or shallow, surface cultivation, oft repeated, should be the order of the day for any and all crops that have to be cultivated by plowing and hoeing. This "surface cultivation" not only kills all grass and weeds, but breaking the crust after each rain opens up the soil to the air, allowing it to enter, to be absorbed by the soil, and to pass out from the soil freely. This loose surface soil is, in short, the lungs, that enable both the soil and the roots of plants to breathe. This "breathing" process is not only of prime necessity to the healthfulness of the growing plant, but it is also essential to that important process termed "nitrification," by which organic nitrogen in the soil is changed into nitrates, the form in which nitrogen is appropriated by plants almost exclusively.

Nitrification requires a pretty high temperature, but in soils that contain a liberal supply of humus, and are stirred frequently with the plow, cultivator or harrow, will go on rapidly in such weather as we usually have after, say, June.

There are large quantities of land scattered here and there over the United States that is so close in texture, so tenacious and air-excluding as to be almost barren; yet these same semi-barren soils contain in their natural state exhaustless stores of plant food, oftentimes proving to be the strongest soils we have. This state of semi-barrenness is sometimes due to too much water, but still oftener to a lack of aeration of the soil, or, to make the matter as plain as possible, a lack of lungs to breathe with. This breathing process can be brought about by drainage where the soil is too wet, by deep plowing on all soils that will stand deep plowing; and thorough plowing with subsoil plowing on any and all soils.

Thorough cultivation unlocks the

stores of plant food the soil contains. Where ground is lumpy or cloddy it is in too coarse a form to be utilized by the roots of plants (no matter how rich in plant food these coarse particles may be), they must be thoroughly pulverized by frequent and thorough cultivation before they can be made available as plant food. The more frequent the cultivation and the more frequent the pulverization of the soil, the greater the quantity of plant food that is made available and the more rapid and luxuriant will be the growth of the plants. One fact should always be borne in mind—that is, that plants do not eat, they drink; consequently no matter how voracious feeders they may be, they cannot eat a clod nor appropriate it to their uses in any manner.

A clod is dead property, worthless, unprofitable, good for nothing. I come now to what I believe to be the most important reason for frequent shallow cultivation, viz., conservation of soil moisture. To conserve the moisture that is deposited in the earth by rains and even by dews necessitates deep preparation of the soil, previous to planting, so that the rain may be readily absorbed. When absorbed it must not be allowed to escape by evaporation, but if the full benefit of the winter and spring rains are to be realized, the moisture must be carried quickly down beyond the immediate reach of the evaporating influences of the sun. Stored deep in the earth, a perpetual reservoir, it is ready to be brought to the surface for the use of growing plants when needed, by the "capillary action" of the earth. In order to make this matter fully understood, I would say that after every rain the soil is settled down, the particles of earth are packed nearer together, and the spaces between them are small.

A number of these small spaces joined together, make little tubes, called capillary tubes, and in these water will rise from below. If the soil has not been disturbed after a rain, these tubes come to the surface, and so does the water in them. The water coming to the surface evaporates and escapes, consequently is lost as far as that particular crop is concerned. When the soil has been plowed, the spaces or tubes are made larger, and water will not rise in these large tubes. Hence it comes up as far as the small tubes are undisturbed and stops there, and the loose soil above prevents its rapid evaporation. In this way and by these means the natural pores of the earth are closed, the loose dirt serves as a "mulch," and the soil moisture is conserved in time of drouth, and retained in the soil (exactly where it is needed) from one rain to the next. This mulch not only prevents the escape of soil moisture, but it also tends to check the intense heat of the sun in its downward progress to the roots of plants. Both of these are very important matters during spells of hot, dry weather throughout the whole United States, but doubly important throughout the semi-arid regions of the Southwest and West.—G. H. Turner, in *Southern Planter*.

### One Hundred and Eighty-two Years from Now.

A magazine writer has computed the population of the world for the year 2072—182 years from now. It will be 5,979,000,000. He has also carefully figured out that the whole earth will support, under full cultivation, 9,994,000,000. If the writer's premises and conclusions are correct, before the year 2100, there will be more inhabitants than can be supplied with food! That would be a condition not pleasant to contemplate to those of us who leave our six or seven-times-great-grandchildren! Before that time shall arrive, agriculture will be practiced upon scientific principles. Agriculture, not manufactures, will be the industry most fostered by governments. Every inch of soil will be made to help sustain life and every spoonful of fertilizer will be saved and applied so that it shall do the most good. Land in the Red river valley will be worth \$1,000 per acre. (Now is the time to buy, for certainly it will never be cheaper.) No, the globe will never be over-populated. Science will stand at the right hand of

humanity and show how food can be produced in quantities to meet the requirements of an ever-increasing population.—*Northern Farmer*.

### My First Fish Pond.

EDITOR KANSAS FARMER:—During the earlier part of my experience in carp culture, I was obliged to be absent during the winter, and expected that my carp would all go up the spout, as the ice had reached the point of ten inches. This was in January. I returned in latter part of March, and was told the ice had never been opened all that time. Here my reader can see that carp can live with the pond frozen over when not too crowded with fish. You ask how many fish I had then. The increase of those sixteen spawners had run into the thousands. So, after I reached home, I commenced to advertise, and we shipped carp nearly every day. I must have sold over \$300 worth that summer. Remember, we fed nothing, only to bait them to come into the traps. I often hauled out as many as 100 pounds at once with my swing-pole dip-net.

A good way to start farmers to buy is to place tanks with carp in in the surrounding cities, as I did. You will always find some merchant ready to take care of your display, if you will furnish an aquarium, as it attracts custom. I left three large carp, twelve inches long, in a butcher's glass-covered tank for two months. They were caught and handled by many and were nearly dead, hardly a scale left on them. This was in Council Grove, our county seat. Seeing the condition the fish were in, I concluded to take them home and place them in my hatching ponds, as it was spawning time. As I reached the east side of my farm I noticed another hole close to the road inside of my pasture fence, the water covering a rod square, caused by public travel, at the foot of a draw. It struck me at once that this would be a good place for another pond, so I stopped and dropped in the crippled carp, and to my surprise the water was so shallow that it did not cover the backs of the fish, and so I drove on home and told my son of fourteen years to take a spade and dig a place as large as a tub, so Mr. Carp could hide from the daily passing school children. This he accomplished in a few minutes. The next day I sent him to grade a dam just inside of the fence. In less than a day he made a grade three feet high, wide enough to allow a team to pass over. Good luck seemed to crown every step taken with these carp, for in a few days it rained so as to fill this dam to the brim. This was in June, and by the 15th of July we had a shower that caused this pond to overflow. A day or two later I passed the new pond and noticed something darting swiftly through a puddle of water, which had gathered in a shallow hole left by our scraper. Having a scoop on my wagon I soon scooped the hole dry, and to my joy I picked up twenty-five young carp over two inches long. After that, whenever one of us passed this pond to do work we dropped kitchen refuse, shelled corn, etc., into the pond as feed. This happened once or so in three weeks.

In October, I drained this little lake, which took less than two hours. I did this to furnish young carp to plant a lake for our county creamery proprietor, Mr. Curtis, who can testify that the average length of the new-born, only three months out of the egg, measured eight inches long, and no less than 1,000 in number, besides many that must have strayed into holes and grass from the pond. We also found the three parent carp big and fat, weighing seven to eight pounds, twenty inches long. I took in \$30 cash for this crop, the expense being only the boy's time, which I call nothing. This is no fishing lingo, as I can prove by those who witnessed the sight at the picking-up scene.

I am often asked "How do carp live? You say you do not feed them." Why, they hunt their living by rooting like a hog. I suppose they are in search of worms, roots, etc.

(To be continued next week.)

A wonderful stomach corrector—Beecham's Pills.

## 'August Flower'

"I inherit some tendency to Dyspepsia from my mother. I suffered two years in this way; consulted a number of doctors. They did me no good. I then used **Relieved In your August Flower** and it was just two days when I felt great relief. I soon got so that I could sleep and eat, and I felt that I was well. That was three years ago, and I am still first-class. I am never without a bottle, and if I feel constipated the least particle a dose or two of August Flower does the work. The beauty of the medicine is, that you can stop the use of it without any bad effects on the system. **Constipation While I was sick I felt everything it seemed to me a man could feel. I was of all men most miserable. I can say, in conclusion, that I believe August Flower will cure anyone of indigestion, if taken Life of Misery with judgment. A. M. Weed, 229 Bellefontaine St., Indianapolis, Ind.**"

EDITOR KANSAS FARMER:—Will you please say, in your journal, to the wheat-growers of your great State, that the way to prevent wheat failure in Kansas is to prepare the wheat land for the business. The wheat land in the wonderful State of Kansas has not yet been plowed. It is lower down than plows have been required to go. Twelve inches below the surface in Kansas soil will be found the wheat land of Kansas in more than 90 per cent. of the acres thereof. You can safely say, for the benefit of wheat-growers and bread-eaters, plow your wheat land deep when it is dry. More than 100,000,000 bushels of wheat can be produced in one year on the present cultivated acres of Kansas by plowing properly the wheat land, and proportionately greater fields of corn when Kansas soil is plowed twelve to fifteen inches deep in the fall.

CONRAD HARTZELL.  
St. Joseph, Mo.

Vacuum leather oil (to be got at a harness or shoe store), is doubtless the life of leather, keeps it good-looking and waterproof, makes it soft, and is handy. This last is important. People will not put up with the old-fashioned grease-pot.

### Bureau of Information.

"The Burlington" has recently established in a convenient quarter of its elegant and commodious passenger station at Chicago, an office designed to afford travelers information on the thousand and one things they need to know, with regard to routes, rates, connections and accommodations. It has been placed in the hands of an experienced man, supplied with all railway guides, maps and time-tables, and is known as the "Bureau of Information."

It is a place to which all travelers may apply for information and receive a full and correct answer. This is the only office of the kind west of the sea-board cities; and it cannot but prove a convenience to the traveling public. All trains of the "Burlington" enter and depart from this station, and the intelligent and valuable service of the bureau may be enjoyed by all patrons of this line.

A special pamphlet will be issued by the "Burlington" in the near future, giving accurate information as to "How to get to the World's Fair Grounds;" How to secure rooms and board at the various hotels, boarding and lodging houses.

Trustworthy agents will be at the C. B. & Q. depot in Chicago to impart all information to visitors. Arrangements will probably be made by which some trains will be run direct to the World's Fair grounds without change or delay.

There is no gain in close-cropping pastures.

### Farm Loans.

Lowest rates and every accommodation to borrowers on good farm loans in eastern Kansas. Special rates on large loans. Write or see us before making your renewal. T. E. BOWMAN & Co., Jones Building, 116 W. Sixth St., Topeka.

## The Farmer's Forum.

This department is devoted to the discussion of economic questions and to the interests of the Alliance, Grange and kindred organizations.

### KANSAS FARMERS AS BANK DEPOSITORS.

Less than deserved attention was given by the public generally to a statement of the deposits in the banks of El Dorado, recently published by H. H. Gardner, Cashier of the Exchange National bank of that place. This was to the effect that of the deposits at that place three-fourths belong to farmers. The editor of the KANSAS FARMER immediately addressed a letter to Mr. Gardner, asking some leading questions as to the facts in the case, and was favored with the courteous reply herewith presented.

This showing is so surprising, that it was deemed important to ascertain, if possible, how general over the State is the condition shown at El Dorado. Requests were therefore sent to the cashiers of leading banks throughout the State. A few of the replies are herewith given, and others, or at least a summary of them, will be given next week.

There may be a good deal of encouragement for politicians of all parties in this showing, but as to this the KANSAS FARMER disavows all responsibility, having simply gathered the information and presented it without distortion. Possibly the old school politicians will find here proof that all charges of the new school are without foundation. No doubt the new party in Kansas will find proof of the wisdom of the people in placing it in power to usher in the prosperity of the farmers. No doubt many, without regard to political affiliations, will reflect that while some have good, fat bank accounts there are others who are on the debtor side of the account. The showing is a favorable one as to the resources and industry of the farmers of Kansas, and in the opinion of the writer is without political significance.

#### MR. GARDNER'S LETTER.

EL DORADO, KAS., June 6, 1893.

EDITOR KANSAS FARMER:—I have yours of 3d inst., expressing interest in the facts set forth in an article of mine that appeared in the Topeka Capital, copied from Walnut Valley Times of this city, and which has gone the rounds of the press very thoroughly of late, on account of the expose of the novel situation of monetary affairs just now existing that has brought the outside borrower to Kansas banks soliciting favors. You ask me if I will be kind enough to analyze my statement of the deposit accounts of the banks in this city and give you an idea of what percentage of the deposits are owned by farmers who live in town and with whom the farm is an investment and not actual occupation, and what percentage is owned by the farmers who live on and till their farms. I have carefully looked over our deposit accounts, which cover \$400,000. Of the amount quoted, and the comparison which it developed will hold good for an analysis of the accounts of the other banks of this city, I find that \$100,000 is owned by citizens of the city, a part is county funds, and a part balance of private State banks in Augusta and Douglass, towns of Butler county, south of us. Of the \$300,000 owned by our farmers, \$42,250 is owned by those who rent their farms, own cattle and live in town or on their farms, and are what we call the independent class. The balance of \$300,000 is divided among 550 accounts, and is owned by farmers who live upon their farms and till them, and supervise the work, if they do not actually hold the plow. Fifteen thousand dollars of the \$42,250 which is credited to the class of farmers I first described, is held ready to be loaned on mortgages on good farms in this county and will displace, when placed, just so much Eastern money, gaining thereby this amount of financial independence. Kansas farmers being able to loan to their neighbors is the history of the older States of the Union beginning to repeat itself here. It may be small at first but it is a start in the right direction and will grow with continued prosperity.

Within the past eighteen months

there has been a great increase in personal property values. Take, for instance, cows that sold for \$10 per head, and they will bring \$20 per head today; so with steers of 1, 2 or 3 years of age. A sharp advance has taken place in all their grades, while hogs have become abnormally high. A customer of mine who owes a \$200 note due at the bank this week remarked to me this morning: "I have ten hogs that will bring enough to meet it." Two years ago twenty cows would have gone to meet an amount like this. This upward movement has been a great factor in easing things for our people and building up the deposits that now they control. We have more sheep in Butler county than any other county in Kansas, and our sheepmen have been changing their breeds from purely wool-producers to the kinds that make the fat mutton of the markets. They have profited this past year in this industry, full-feeding over 11,000 head and producing some as fine mutton as ever Ohio or Michigan sent to market. Men who are renters, and who cannot rejoice in the fee simple that our easier classes possess, have for three years past received high prices for their corn, selling to the cattle full-feeders. They have averaged from 33¢ to 35 cents per bushel, and thereby many have paid off all their indebtedness and have ready money to their credit with us. There is a greater change in the improved condition of this class than has been apparent for eight years past. I might go on and fill up column after column of your valuable space in going into the details of the improvement in all the lines of industry which are possible and are in operation in this county, which is no more favored than many other parts of our State, but I have given you sufficient data which will account for the success for Butler county people during the last three years, and our great growth of deposits. The future to me, an enthusiastic, sanguine and patriotic Kansan full of State pride that temporary adverse conditions have never been able to make lukewarm, is just as auspicious as it ever was during the bright and delusive period of our "boom," for our people now exhibit in a marked degree the thrift that has been born of experience and that was lacking when the flush times passed, were on. This is the saving element that gave the down-Easter his money to loan and it will thrive on Kansas soil more readily than was possible in New England, and great will be the profitable result and outcome.

Immigration from Illinois has started again and we have had three large excursions here since last fall. One last week of thirty-five land-buyers, and nearly all made purchases, for what land-seeker striking Kansas in the month of June could resist her tempting beauty.

What I have said will prove that we, down here in the kingdom of Butler, are happy and very prosperous. There is no monopoly of prosperity and happiness in the hands of anybody, so we cordially invite any home-seeker to our midst, assuring them that honest labor here will find reward.

H. H. GARDNER,

Cashier Exchange National Bank.

#### MR. BIGGER'S LETTER.

HUTCHINSON, KAS., June 5, 1893.

EDITOR KANSAS FARMER:—In answer to your favor of June 3, I take pleasure in stating that about one-fourth of the money we are now loaning on Kansas farms and over half of the one-year loans and short-time paper is now furnished by residents of the State. A very large proportion of those furnishing the money are farmers living on their farms and have made the money so loaned out of the products of their lands. Many come in and offer to deposit money with our company as low as 5 per cent. per annum, subject to call, but we cannot accept it as our charter does not provide for receiving deposits.

The farmers of the country have never been so prosperous as at present, since the country was settled.

L. A. BIGGER.

MR. GUERNSEY'S LETTER.

INDEPENDENCE, KAS., June 10, 1893.

EDITOR KANSAS FARMER:—Referring to yours of the 8th inst., asking

for information as to the amount of deposits in the banks of this city to the credit of farmers, it gives me pleasure to furnish you the following figures and estimates:

At the date of their last statements, May 4, 1893, the three national banks of this city had, as shown by their statements to the Comptroller of the Currency, deposits amounting to \$471,842.67. Of this amount \$128,905 consists of time certificates of deposit drawing interest; \$57,433.56 of demand certificates of deposit, and \$285,504.01 of individual deposits subject to check.

I should estimate that 50 per cent. of the total deposits belong to farmers living on their farms, and about 15 per cent. more to farmers living in town.

This county has six banks, in addition to three in this city, which hold deposits to the amount of \$375,000, making the total deposits in the county, in round numbers, \$865,000.

Our population was 22,379 when the count was made on the 1st of last March, so that the average deposit for each man, woman and child in the county amounts to \$38.20.

The three national banks of this city have \$200,000 capital, owned by 125 stockholders, of whom sixty-nine are farmers living in the county.

GEORGE T. GUERNSEY,

Cashier Commercial National Bank.

#### MR. KREAMER'S LETTER.

JEWELL CITY, KAS., June 10, 1893.

EDITOR KANSAS FARMER:—In answer to your favor of 8th inst., will submit the following: Total deposits in our bank, \$120,192.72. Farmers who live on farms and whose sole occupation is farming, \$73,149.47; farmers who live in town, \$1,127.47; women depositors, about one-half of whom reside on farms, \$6,806.05; business men, \$37,700.25; laboring men in the city, \$1,409.48; total, \$120,192.72.

Above was taken off our books at close of business June 9, 1893.

NEWTON KREAMER,

Cashier National Bank of Jewell City.

### Weekly Weather-Crop Bulletin.

Issued by the United States Department of Agriculture, in co-operation with the Kansas State Board of Agriculture, for the week ending June 12, 1893; T. B. Jennings, observer:

The middle and eastern thirds have been well watered except Comanche, Kiowa, Pratt, Kingman, Harper and Barber.

The rainfall is heaviest in the central counties of the middle division; where it amounts to from three to six inches. Heavy rains fell throughout the Cottonwood and Marais des Cygnes and upper half of the Neosho valleys. The rain was light in the western third. Hail storms occurred in the central counties the first of the week.

Temperature and sunshine have been nearly normal this week.

The week has proved a very good growing week, in the larger part of the middle and eastern divisions being the best yet this season, though the high winds of the 8th and 9th are very generally reported as detrimental.

Wheat has made a marked improvement, generally, in the central counties, though some fields were much damaged by the hail (Reno reporting one field of 125 acres destroyed). Mitchell estimates her wheat will yield from five to twenty bushels per acre. Cloud reports wheat headed out and some fields having a good stand. In Washington but little wheat is left standing. Generally the wheat is in good shape in the middle division. Allen reports a red rust in some wheat fields. Harvest has begun in the southern tier of counties.

Corn has made a great improvement generally, in growth and color, and, though very backward, is growing rapidly.

Oats are headed out up to the Kaw and are heading north; they have generally greatly improved, though Allen reports a red rust in some oat fields. Grass continues in fine condition except in the west, where it is in bad shape. Gardens and potatoes are generally reported in a very good condition. Chinch bugs have reached Pratt and Stafford.

Every farmer should be compelled to keep his bulls and his dogs at home.

Ever try the knapsack sprayer on a muddy carriage? Do so and see how nicely it works.

If you haven't a good neighbor, see that your neighbor can't justly make the same complaint.

The government in Wall street still lives! Some foolishly think the government is in Washington.—Farm, Stock and Home.

### A HAPPY RELEASE.

#### A Prominent Lady of the Capital City Tells Her Story.

DR. S. B. HARTMAN—Dear Sir:—I suffered from nervous prostration and general debility for years. I tried the best physicians and many medicines, but all failed. Pe-ru-na cured me perfectly.

MRS. C. C. FILLER,  
174 E. Rich St., Columbus, O.  
TIRED HOUSEWIVES.

If all the sick mothers, invalid daughters and diseased sisters in this broad land would take the above lady's simple and direct testimony to heart and do as she has done, no pen could describe the benefit that would follow. There are so many women, especially married women, who drag themselves wearily around from year to year without any particular disease, and yet miserable beyond description. They ache, and tremble, and throb, growing more nervous, tired and debilitated every day. For this class of sufferers Pe-ru-na is the most perfect remedy in existence. It relieves, it soothes, it quiets, it strengthens, and no tired, overworked woman in the land should be without Pe-ru-na in the house for a single day.

Detroit Tribune: Attired in a morning robe of delicate lace, she heeded not the bitter tears that chased each other along the bridge of her nose and splashed upon the fried eggs that lay with the sunny side up before her.

Regretfully her glance rested upon her husband, who sat in his dressing gown and nervously toyed with his spoon.

"No, Annabel," he was saying, "I do not care for any of the baking powder biscuit you bulled with your own hands."

A short gasp stirred her bosom.

"Plantagenet," she faltered, "did you not say before we were married—"

A sob temporarily choked her utterance.

"—th—that you would gladly die for me?"

He started and turned pale.

"Did I say that?" he eagerly demanded.

"You did, Plantagenet."

"Annabel," he said in a hollow voice, "I am a man of my word. Can I trouble you to pass me those baking powder biscuit? Thank you."

And without another word he courted death.

### Piles! Piles! Piles!

Not piles of worthless stuff, but Steketee's Ointment and Pile Remedy combined will cure the worst case of Piles in any form, and have plenty left to cure burns or any sores on man or beast. Was never known to fail to cure sore breast and scratches on horses. All for 35 cents. Do not pay \$1.00 when you can have this for 35 cents. For sale by druggists, or on receipt of 35 cents in U. S. postage G. G. Steketee, Grand Rapids, Mich., will send it. Cut this out and take it to a druggist first; 3 boxes for \$1.00.

### Make Your Own Bitters

On receipt of 30 cents, U. S. stamps, I will send to any address one package Steketee's Dry Bitters. One package makes one gallon best tonic-known. Cures stomach and kidney diseases. Now is the time to use bitters for the blood and stomach.

WHEATON, Ill., December 7, 1890.

MR. STEKETEE:—Your Dry Bitters has no equal for kidney or liver complaint. Have been troubled for the past ten years. Find your bitters excellent.

FRANK SCHUSLER.

Send G. G. Steketee, of Grand Rapids, Michigan, 30 cents, U. S. stamps, and we guarantee that he will send at once.

### ST. JOSEPH Medical and Surgical INSTITUTE.



DR. EGBERT, Specialist in Diseases of the Eye, Ear, Nose, Throat and Chest, Mental and Nervous Diseases. Medical Expert on Insanity.

DR. MILLER, Specialist in Diseases of Women, and Diseases of the Rectum.

DR. WALKER, Specialist in Surgery, Diseases of the Skin, Diseases of the Blood, Diseases Peculiar to Men.

All the Latest Scientific Treatments. Electricity, Massage, Etc. Each doctor is a regular graduate, has fitted himself by years of study and practice for his specialties, to which he devotes his entire time. Write for free printed pamphlet and Symptom Blank No. 1 for Men, No. 2 for Women, No. 3 for Skin Diseases, No. 4 for Rectal Diseases. Call on or address Consultation FREE. ST. JOSEPH Medical and Surgical INSTITUTE, Northeast Cor. 8th and Edmond Sts.—Opp. postoffice Lock Box 900, - St. Joseph, Mo.

# The Horse.

## Horse Market Reviewed.

KANSAS CITY.

The horse department of the Kansas City stock yards furnishes the following:

The market during the past week was a pleasant disappointment to all shippers who were lucky enough to have good drivers, drafts and chunks. The demand was quite good for anything with flesh and quality. Prices were about the same as the preceding week. This state of affairs is very flattering to the Kansas City Stock Yards Company, as most all Eastern and Southern markets are feeling the effects of the stringency of the money markets throughout the country. There was some inquiry for big, rough mares to go to the wheat districts, but buyers will not purchase unless they get stock awful cheap. It is hard to say what values will be at the end of the next sixty days. Parties who have stock ready for market would do well to ship and cash them at once, as from the present outlook prices will soon take quite a tumble. Country buyers should be very conservative from now on and purchase nothing but absolutely straight, sound horses, with as much style and finish as possible, for this class always brings good prices. It is the medium and culls that have to suffer.

Draft, extra, 1500 lbs.....	\$130@175
Draft, good, 1300 lbs.....	80@100
Drivers, extra.....	125@250
Drivers, good.....	75@100
Saddlers, good to extra.....	35@75
Southern mares and geldings.....	20@50
Western range, unbroken.....	30@50
Western range, broken.....	15@30
Matched teams.....	15@25
Western ponies.....	15@25

CHICAGO.

J. S. Cooper, commission salesman of horses, Union stock yards, Chicago, says:

Serious financial complications opened the market Monday practically dead and lifeless, from which, so far, there has been no recovery.

Private selling has been totally out of the question, and the sales at auction have been at large concessions, equal to \$20 per head all round.

Viewing the market from the present standpoint a very conservative course must be pursued pending the unsettled condition of affairs generally.

Country buyers must not only go slow, but must more particularly buy only when concessions are made equivalent to the shrinkage here.

It can not be said that there is at present a demand for any class.

Following are sales of week by J. S. Cooper:

2 bay horses...\$250 00	1 roan pony...\$ 22 50
1 bay mare.... 80 00	1 bay horse... 77 50
1 bay horse.... 97 50	1 bay horse... 142 50
1 blk mare.... 85 00	2 br'n mares... 200 00
1 sor mare.... 75 00	2 gray horses... 225 00
1 bay horse.... 87 50	1 sor horse... 92 50
1 spotted h.... 55 00	1 spot'd pony... 75 00
1 sor mare.... 85 00	1 gray horse... 185 00
1 bay horse.... 67 50	1 gray mare... 167 50

## Horse Notes.

Well-matched teams are in great demand in the East.

Eighty-seven horses have entered the 2:30 list this year.

There are 400 horses guaranteed for the Kansas City June meeting.

The Girard track has been leased. Wm. Cecil, formerly of Danville, Ky., is the trainer in charge.

Grant's Abdallah, 2:10½, the fast Kansas City pacer, has been sent to Terre Haute to join the Stewart string.

H. Woodring, of Elk City, has his three-year-old stallion, Hampden, in training at the State fair grounds. He is in charge of H. L. Kenegy.

Robert Bonner, who kept promising a sensation with Maud S. the greater part of last season, will trot her for a record this year, he says, without fail.

Ed. Bennett, of Topeka, has a green four-year-old pacer, Importer, that he thinks will beat 2:16 this year. He has entered him in \$25,000 worth of purses and stakes.

The Kansas State Fair Association belongs to a circuit this year that includes Creston, Omaha, Lincoln, St. Joe, Kansas City, Sedalia and Topeka, in the order named.

The dead Palo Alto sired but thirty-three colts and fillies, a remarkably small crop of youngsters from which to obtain distinction or honor. Some of them are promising candidates for the 2:10 list.

A large number of green horses are in training on the State fair grounds track. Owners from all over the State have horses on the grounds and are having them jogged every day. The track is in excellent shape, and is in charge of N. Newton.

The latest promised sensation in the West is the three-year-old pacing filly Donnie, by Nutwood, dam Carrie, by George Wilkes, and therefore a full sister to Manager, 2:09½, pacing. She has been sent to

Budd Doble, at Terre Haute, who will campaign her. She is said to have done eighths in 15 seconds and less, and if she can keep up her speed she will have the record in her grasp.

The Missouri State Fair Association has been suspended by the American Trotting Association by order of Budd Doble, who says they have not paid him the \$3,500 for the Nancy Hanks performance, or the \$500 for the exhibition mile trotted by Martha Wilkes. Nancy went in 2:06½ at her trial.

Wm. Thompson, of Kansas City, has three good horses in charge of E. B. Bennett, at the State fair grounds. They are Blackwood Bess, who is entered in a lot of good races in the Western circuit; Hypocrite, a green three-year-old filly by Wayward, and the two-year-old stallion Roy Honor, which Mr. Thompson is confident will beat 2:20 this season. Mr. Bennett is also training two yearlings by Honor and Senator Updegraff.

N. Leach is in charge of a good string of horses at the State fair grounds. Jessie Castle, a green mare just brought here from the East, is an animal in which he takes great pride. He also owns the two-year-old stallion Sidros, by Eros, dam by Sidney, which he thinks will be a flyer before the season is over. Peter Gregory, a good looking stallion owned by Judge Thompson, of Burlingame; Ben Haddad, a three-year-old pacer owned by J. C. Rodgers, of Wamego, and Columbus Maid, owned by Smith & Billings, of Kinsley, are some of the horses in Mr. Leach's care.

The well-known horseman and driver, John Splan, says: "I have just returned from Kentucky, and must say I never saw good horses as scarce as they are now. All the talk about the horse business being overdone is bosh. More people are looking for good, useful horses now than at any time in the past five years. The only thing that the bottom has fallen out of is the demand for pedigrees attached to cheap horses. It has gone, never to return. The next thing to go will be the combination sale business. No practical horseman need

see how few really fine horses he will meet in a day's travel.

The man who pursues breeding as a business is content to sell for what animals are worth.

Many a man in the breeding business is just beginning to get ready to raise trotters in the right way.

The great argument in favor of the covered track is that it affords opportunity for gradual preparation.

Capital, minus experience, suffers defeat and disappointment in the horse business as in all other occupations of life.

The magnificent careers of Hambletonian, George Wilkes, Electioneer and scores of other great sires, proves sufficiently that speed follows blood lines.

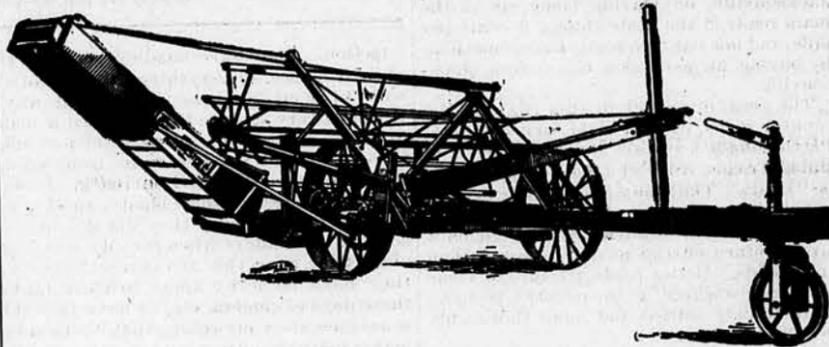
Nowadays excuses are not in order, and owners of slow sires must acknowledge "the corn" of inability to trot fast. The trite saying, "he never was trained," is worn out.

In the horse business, as, in fact, every other, it is well to cater to the demands of people who have money. A good horse sells well at a good price, while a poor horse can only be sold to a poor man, and consequently at a poor price.—*Mirror and Farmer.*

## The Hodges Header.

The cut on this page represents the new chain drive steel Hodges header, which the Acme Harvester Company are now manufacturing and placing upon the market. Since 1860 when the Hodges header was first put upon the market, it has led all others, and has gained a world-wide reputation, and there is no doubt but its success and good name is due to care that has been taken in the construction of the machine as well as the judicious advertising that has been done through the best advertising mediums of the country.

The most skillful experts are employed to select material to be put into the Hodges header. Even after the material has reached the factory at Pekin, Ill., every piece is closely inspected by men who are employed for that purpose only, and who are the best



THE HODGES HEADER.

worry, as the business for him is better than ever."

## Stub Ends of Thought.

Cleanliness counts.  
Breed up, not down.  
Study conformation.  
Speed follows blood lines.  
Beware of delicate horses.

Individuality is demanded.  
Inferior stock is expensive.  
Big stakes have small entries.  
Sell when you have a customer.  
Private trials have had their day.

Impatient drivers ruin many a colt.  
The "tin cup" has served its purpose.  
Pacing races under saddle are coming.  
Light shoes are the shoes of the future.  
Indiscriminate breeding is unprofitable.

If your horse can trot enter him in races.  
It is not what he can do, but what he has done.

Moral legislation is hitting the horsemen hard.

Short preparation means early breakdown.

A road horse without speed has small value.

It costs less to develop a pacer than a trotter.

The horse's foot is what the blacksmiths make it.

Never buy a puller or an interferer for a road horse.

Disposition and constitution are as important as gait.

A pleasant roadster doesn't need to be a wind-splitter.

A colt not thoroughly "bitted" is never well "broke."

A tested race horse of race-horse blood needs no booming.

A horse should not be on a "fine edge" too early in the season.

A mare transmits just as the horse does, if the blood of each be equally intense.

Lack of good business methods in the horse business will lead to no end of trouble.

If any one wants to find out how scarce good road horses are, let him step out and

judges that can be obtained on the material that should be used in the construction of so important a machine as a header that has always led the way for others. It is true others have tried to imitate the old reliable Hodges header in many ways, but they have invariably drifted away from the course the manufacturers of the Hodges header have pursued, and built cheap, shoddy machines for the trade, thinking by so doing, they could sell their machines at a less price and get a hold on the good and solid trade that the Hodges header has been enjoying for so many years, but experience has taught a great many of our manufacturers that to follow that course and manufacture cheap machines is a bitter experience in the end, for instead of building up a reputation for manufacturing good and reliable machines it simply builds up a reputation for building snide machines, and places a spot on the reputation of a company that can never be wiped out, no matter how good they may try to manufacture their machines afterwards. One can readily observe by reflecting back a few years that those of the manufacturers who have never manufactured anything but the best machines, are the ones that have been successful and stand to the front to-day, and that is the great secret of the Acme Harvester Company's success, and why their machines stand so far in the lead of all others, and it is a universal verdict of all who have ever used the Hodges steel header, "that it is the best and cheapest header for the farmer to buy," although it may cost a few dollars more to start on.

The expense of keeping a Hodges header in repairs is at least 75 per cent. less than that of any other header on the market, and the fact that there has never been a year that there was Hodges headers enough built to supply the demand, shows that it is a favorite of the farmers, and they will only buy others when they are unable to secure a Hodges.

The increasing demand has been so great that the Acme Harvester Company have been obliged to increase their capacity at least three-fold over their capacity of two years ago. They have kept constantly increasing their capacity and enlarging their factory until it has become a gigantic concern, and ranks among the largest factories of the country.

# Poor

horse with sore back or foot or diseased skin! Apply Phénol Sodique. It will do wonders.

HANCE BROTHERS & WHITE, Philadelphia. At druggists. Take no substitute.

## The Keeley Cure.

EDITOR KANSAS FARMER:—In your issue of the 24th ult. I notice an article or advertisement headed "Narcotics," purporting to be a cure for inebriety, and that those "little tablets have cured thousands and have been on the market for years." If they have done so much good why have we not heard from some of those who have been benefited?

It seems passing strange that so valuable a paper as the FARMER, that reaches so many thousands, has said nothing regarding the "Keeley treatment of the double chloride of gold," that has in the short space of two years cured 240,000. Its fame has spread to not only every State in the Union, but to foreign countries—England, Denmark, Finland, Norway, Sweden and many other countries. The pulpit and the press are advocating it with no uncertain sound. The poor, despised drunkard, for whom there seemed no hope, is now treated humanely, as a sick, diseased man, for whom there is hope and a remedy.

There are 128 institutes, established in various States and Territories, treating inebriates, among them some of the most brainy men of the country; and, it is to be regretted, ministers of the gospel, and, to our disgrace, women, who have fallen into the liquor and morphine habits. It is pathetic to read their letters in *The Banner of Gold*, describing their situation before taking the cure, and their thankfulness and gratitude for being delivered from this thralldom worse than death.

Leagues are being established to raise funds to help those unable to meet the expense of the treatment. There are forty-eight in Illinois alone. In your own goodly city of Topeka good work is being done by the Keeley League. Their club room is at 117 West Sixth street, which is open day and evening for the members of the League and friends. The Ladies' League also holds its meetings in the same room and gives entertainments to raise funds to help the unfortunate who are not able to meet the expense. The women's auxiliaries, like the W. C. T. U., are also doing a great work.

Strange that in a prohibitory State such institutes should be needed, but prohibition does not cure the drunkard of his disease. It only prevents the open saloon being a disgrace to our streets and luring our youth to destruction.

It is now an open question whether, instead of sending the drunkard to "lock-ups" and prisons, it would not be better, financially, as well as humanely, for the State to have a Keeley institute in every prison and reformatory, subjecting the poor victim to a course of treatment, curing his disease and returning him to the world an honest citizen. Police Judges are recognizing this to be the better course, for almost all crimes are committed under the influence of liquor.

I quote an item in point from the *Chicago Tribune*: "The Michigan Senate has passed a bill which ought to become a law. It provides that the man who gets drunk and is arrested for that offense may either pay the ordinary fine and be locked up if he can not pay it, or give a satisfactory bond that he will go to some good place where men are treated for the liquor habit and be cured of his disease. If a man says he wants to be cured, but is too poor to pay the bill, then the expense may be paid by the county. In such case Justices of the Peace and police magistrates are empowered to sentence drunkards to some institution."

If such laws were enacted it would be treating the drunkard humanely. Insane persons are sent to asylums to be cured, and are not drunkards insane, committing more crimes under the influence of liquor than any insane person? M. M. D.

## The "Katy Flyer."

Commencing June 18, the Missouri, Kansas & Texas railway will inaugurate a daily solid through vestibule train service from all principal points on its line in Texas, Indian Territory, Kansas and Missouri, to Chicago. The train will go through from Houston, Texas, to Chicago, making the quickest time and affording the best service that has ever been offered in the Southwest. Those intending to visit the World's Fair will welcome this superior service with delight, and no pains will be spared to make the "Katy Flyer" the most popular train running into Chicago. Rates as low as the lowest, the quickest time and best service. For further information, sleeping-car accommodations, etc., call on or address A. FAULKNER, G. P. & T. A. St. Louis, Mo.

## The Home Circle.

### To Correspondents.

The matter for the HOME CIRCLE is selected Wednesday of the week before the paper is printed. Manuscript received after that almost invariably goes over to the next week, unless it is very short and very good. Correspondents will govern themselves accordingly.

### The Woman's Building.

The Woman's building on the World's Fair grounds was dedicated with appropriate ceremonies on Monday, May 1. The Central hall was magnificently decorated with flowers, and there were gathered there representative women of every clime. The opening prayer was offered by Miss Ida Hutton, after which the following dedication ode was read by Miss Florence Wilkinson, daughter of Prof. W. C. Wilkinson, of the University of Chicago:

From the lovely land of Alhambra, and out from the mists of the years,  
Let us summon a presence before us, as spirits are summoned by seers.

Behold, a woman is standing, the glitter of gems in her hands,  
With far-gazing eyes that are turned toward the rim of invisible lands.

Behold her royally bending to hear a stranger's appeal,  
With gift of grace and godspeed, Isabella, the Queen of Castile.

Let us join to man's glory the woman's, the glory of faith and of deed,  
That cheered the brave mariner in the days of his desperate need.

He, sailing and sailing and sailing into the sunset seas,  
Little dreamed of the land that he sailed to, the sage and sad Genoese.

She, dreaming and dreaming and dreaming apart in her palace in Spain,  
Little dreamed of the future awaiting that land of the Western main.

The future, a plant of God's garden, unfolding its beauty supreme,  
To blossom into the splendor of this White City of Dream.

Not as a queen, but as a woman, we hail Isabella and crown her to-day  
In these halls that women have built and illumined with costly array.

Here, gravely let us be grateful as heirs of a generous past,  
For the pleasures and powers and duties fallen to women at last.

They have yielded to her their kingdoms, science and letters and art,  
And still she controls the realm of the home and the heart.

### A TRIP TO FLORIDA--3.

BY OUR BEE EDITOR.

#### WHAT CAN YOU RAISE?

Some one says, "Is not the land in Florida poor?" I quote again from a Florida paper: "Florida is noted for two things, the poverty of its soil and the large sums of money which may be made and are made by good management on very small areas of land." The raising of vegetables is a prominent industry around Ocala. I heard a gentleman remark at the table that a friend had just sold his twenty acres of cabbage, as it stood in the field, for \$3,000—not a bad sum to be made by an ordinary tiller of the soil in one year. Of course, he had been to some expense, but surely half of this stood for profit.

I will not attempt to tell how productive the soil is, as I did not see enough of its products and learn its possibilities sufficiently to be a competent judge. I did see enough, however, of this peninsula of sand and phosphates to know that she has resources that the most sanguine admirer has not yet ventured to fully describe. I venture to quote one illustration from an agricultural paper: "Mr. Charles Kerr, of Archer, is the owner of a small nursery and truck farm, of which latter the principal part is a one-acre patch devoted to egg plants. He regards 500 bushel crates as a fair crop from this acre, though sometimes he raises 1,000 in a very favorable season. His standard of production is a bushel from four plants, but he has occasionally harvested a bushel from two plants. They fetch from \$1.50 to \$3.50 a bushel, according to the season and demand."

Harriet Beecher Stowe said, twenty years ago: "While Florida cannot compete with the Northern and Western States as a grass-raising State, yet there are other advantages in her climate and productions which make even stock farming feasible and profitable. The disadvantages of her burning climate may, to a degree, be evaded and overcome by the application of the same patient industry and ingenuity which rendered fruitful the iron soil and freezing climate of the New England States."

This is just as true to-day as it was then.

#### BEES AND HONEY.

Florida is the natural home of the honey bee. I have seen it somewhere stated that the Spaniards first introduced bees to this continent by bringing them to Florida. Let this be as it may, bees have flourished and gathered honey here for a long time, and all that is needed to make this a land "flowing with milk and honey" is better cows with better care, and a wide-awake, modern apiarist in every community to show the na-

tives what can be done with the Indians' "sting fly." In many parts of the State bee-keeping is in a very crude condition. I made diligent inquiry in every place I went, hoping to find a man who was thoroughly posted in modern bee culture, but I failed to find any such. I saw evidences of at least a meager knowledge of advanced apiculture in Jacksonville. I saw Italian bees upon the flowers, which is evidence of some advancement. I was told, however, that farther down in the southern part of the State there was a number of wide-awake, thoroughly posted apiarists who are making a success of the business. I can see no reason why there should not be money in bees in any part of the State, as the climate is favorable and there is an abundance of flowers in almost every locality. Notwithstanding the favorable conditions for the production of honey, I was unable to find a single pound of any kind of native honey in Jacksonville. Here is an opportunity for some live bee-keeper.

#### TRANSPORTATION.

Owing to the large amount of travel in the winter, Florida is better supplied with railroads than she is with some other things. If one simply wants to see the State in a general way and visit the leading cities, he will find fairly good accommodations. Two very well equipped railroads center at Jacksonville, as well as a number of others of less importance. A good way to see the State, if one is starting from this locality, is to buy a ticket via Tallahassee, over the Florida Central & Peninsular railroad to Jacksonville. From Jacksonville, buy a ticket over the same road to Tampa, stopping off at points of interest. I would advise any one making the trip to arrange to spend a few days at Ocala, the best built city I saw in the State. Returning from Tampa, come by way of Palatka, over the Jacksonville, Tampa & Key West railroad. Both of these roads are fairly well equipped, and one can travel on them with a reasonable degree of comfort. I found their employes courteous and obliging, and think others will have the same experience. There is no use to buy a ticket further than Jacksonville, on leaving home, as all the main roads in the State charge 3 cents per mile, and one can frequently save something by buying an excursion ticket from Jacksonville.

The great drawback to this State is the country roads, or rather the lack of them; for they have no roads as we are wont to think of roads. A better name for them would be "trails." The time will come, however, in my opinion, when this will not be the case, as I do not know of anything that yields a larger return on the money invested than good roads. Better roads are sure to come here, as elsewhere, as the country becomes more thickly settled and more thoroughly developed.

#### THE HOME LIFE

of Florida is unique in many respects. It has a free and easy atmosphere about it, and partakes largely of the newness, if we may call that new which is in reality old, and even of the crudeness of the country. But notwithstanding this, genuine Southern hospitality makes it as genial and attractive to a stranger as the warmth and sunshine are after a frosty night. The conventionalities of society are soon forgotten here, and one finds himself on as familiar terms with these people as though he had known them all his life. The crown and glory of life in Florida is its "outdoorness," to use the phrase of another. These genial, cheerful, hospitable people get plenty of fresh air and sunshine winter and summer, which accounts for their good health and evenness of temper. If they have less of what we call the comforts of life, they have at least learned how to enjoy life without them, and to make the most of the amenities of the climate. The houses, as I remarked once before, are built for warm and not for cold weather; as warm weather is the rule and cold the exception, one need not wonder at it. The ancient idea of an open court with rooms built around it predominates, except that the open court has become a hall extending to the four points of the compass, with rooms opening off from it in as many directions. Verandas are plentiful, and sometimes they take the form of an old-fashioned porch that reaches all around the house, and if this is two-story, the porch is also. This furnishes the inmates of the house a shady place to lounge and enjoy life during the day, protects the sleeping rooms from the direct rays of the sun, and thus makes life more comfortable day and night. The nights, however, are generally comfortable in Florida, let the day be as warm as it may.

The people who live in Northern cities might learn some profitable lessons in these Southern homes on outdoor exercise and ventilation. Our close rooms, lack of ventilation and hot-house methods of living are responsible for at least one-half of our sickness. People need plenty of pure air, night and day, winter and summer, sick or well, and they come about as near getting it in Florida homes as any place I have ever been.

I noticed one peculiarity in Jacksonville that I was unable to explain to my own sat-



Just one moment! You haven't washed your new laces yet? Then take this word of warning. Don't use colored soap. The lace is much too delicate to bear it. Take one-quarter of a cake of Ivory Soap and pare it into fine shavings, dissolve in a quart of hot water, fill a glass fruit jar half full with this solution and add the article to be cleansed. Shake it well. Rinse in the same manner, using clean, lukewarm water. This is the only safe and effective method.

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isfaction. They have no alleys in the rear of their homes. Everything, from a load of wood to an oil can, goes in the front yard. It looked very strange to me to see a man drive up in front of a fine residence and throw a load of wood into the front yard, and then proceed to carry it back. Unoccupied land seemed to be plenty, and I was at a loss to know why they did not utilize some of it for alleys when the city was laid out. They have this advantage, however, they have no filthy alleys to clean up in these days of cholera, etc. I have thought sometimes since my return that it would be better for the health of our own city, if some people in it had no back alley, and I presume this is the case in every city.

#### The World's Fair.

A month spent upon the grounds of the World's Fair, at Chicago, has given me many definite thoughts as to what this fair will do for the many people who will see the wonders displayed. No one who has the bodily strength to enjoy the sight-seeing necessary to acquire a definite idea of even a part of the World's Fair, can afford to lose the opportunity for mental growth which is given this summer in Jackson Park.

No farmer, who has his farm paid for, can afford to deny himself and his wife the sights to be seen there. Even a few days of looking at the display will last, in the memory, all the remainder of life. The stately white buildings, with their emblems of almost all phases of life placed around and upon them; the lagoon, with its electric boats and its gliding gondolas—the former whisking about from pier to pier rapidly as one would care to go, the latter paddled slowly up and down by the swarthy gondoliers in their bright clothing; the fountains, the bridges, the towers, and the beautiful peristyle, through which one catches a glimpse of blue Lake Michigan, all go to make up a sight which is beyond description. Then these buildings all cover displays which it would take weeks to examine thoroughly. One person will look for the wonderful machinery which is almost human in its work, another be interested in the means of locomotion which have almost annihilated distance, while the wealth of the interior of the earth, as shown in the Mining building, will attract much attention. The china and glassware, the jewels and fabrics from various lands, the exhibits of work done by children, by students of all grades, ages and conditions, the displays of almost everything found in the air, the earth, and the waters under the earth, mean not only enjoyment and pleasure to every sight-seer, but they mean a broadening of the mental capacity of every one who by this means learns something of what is to be seen outside his own country.

A visit to the Midway Plaisance gives one a thankful heart that he is neither a Javanese, a Turk nor an Arab, that his

home is not in the Soudan camp or the street in Cairo, and while he is willing to eat the Vienna roll or drink the Bedouin koumiss, he is glad to belong to the greatest nation on earth and to do homage to "Old Glory," which floats in sight of all these strange people while they are away from their native lands and on exhibition for all the world to see their ways of living.

The cost of seeing this fair is the first question. The railroads have begun to cut rates, and it seems likely that the fare will be very low before many weeks. In Chicago one may pay about what he wishes to pay for lodging, and the same is true of meals. Rates are about what one will find in any large city. Rooms rent occasionally for fabulous sums. The best way to go is in parties, arranging for two people to room together. Plenty of very comfortable rooms may be rented for \$2 per day—that is, \$1 for each person; then meals will cost \$1 more, and it costs half a dollar each day to enter the gates. Of course one may spend more upon himself, but he can get along comfortably on \$2.50 per day. For \$15 he can stay at the fair six days, and I know of no way in which so much knowledge can be gained with so small an expenditure of time and money. There are tales told of exorbitant prices charged in restaurants, of many ways in which money is extorted from the sight-seeing public, but if one will read the papers, keep his eyes open and ask questions of the very obliging Columbian guards, who are stationed almost everywhere, there is no reason why he should be asked to pay out one penny more than he wishes to spend.

This will be a summer in the history of our country which will be referred to for years to come. The knowledge gained by every person who visits the fair will be to him a source of comfort all his life. No number of weeks spent in study will begin to equal the same number of days spent in seeing the displays at this great fair. So, I say, again, no one can afford to miss seeing it. The farm homes of Kansas need to have knowledge of all that their neighbor farms—States and countries—have brought to show to the world. I hope that a large proportion of the farmers of Kansas will go to the World's Fair and will see to it that the wives and the grown-up young people will see it also. It will pay in more ways than one.

N. S. KENZIE.  
Kansas Agricultural college, June 10, 1893.

#### The Faults and Follies of the Age

Are numerous, but of the latter none is more ridiculous than the promiscuous and random use of laxative pills and other drastic cathartics. These wrench, convulse and weaken both the stomach and the bowels. If Hostetter's Stomach Bitters be used instead of these no-remedies, the result is accomplished without pain and with great benefit to the bowels, the stomach and the liver. Use this remedy when constipation manifests itself, and thereby prevent it from becoming chronic.



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The downfall during the recent panic of a large number of speculative institutions which had been dignified by calling them banks, emphasizes the need of the postal savings system for the care of the money laid aside by thrifty people.

An immense amount of toadying has been exhibited during the last few weeks by certain of the American people towards Princess Eulalia, daughter of the deposed Queen of Spain. This young woman is made of precisely the same kind of clay as other mortals. She attends bull fights, smokes cigarettes and bets on horse races. But because she is related to a little boy who is nominally King of Spain all these things look very pretty in the eyes of American snobocracy.

The Treasury Department has just issued its summary statement of the exports and imports of the United States for the month ending April 30, 1893, and for the ten months ending the same compared with corresponding periods in 1892. From this it appears that the exports of bread-stuffs for the ten months ending April 30, 1892, were valued at \$262,002,371, while for the ten months ending April 30, 1893, they were only \$166,857,146, a falling off of over \$100,000,000. The total exports of domestic products for the period named decreased over \$180,000,000. The imports for the same ten months were about \$99,000,000 greater this year than last. There is thus shown to be a difference in the trade balances of nearly \$280,000,000. This is a sufficient explanation of the vigorous exportation of gold during a considerable portion of the latter period.

The fuss which some people of wealth and therefore prominence and certain other people who ought to have better sense are making over the titled foreigners who have come over from Europe on account of the World's Fair, recalls the incident of the young lady who with her father was doing Paris during the days of the last Napoleon. "Ah," said the young lady, "if we only had a court and its accessories in America!" The father had not forgotten his early struggles with poverty and the American opportunities by the use of which he had acquired his wealth, and he meditatively replied: "If we had a court and court accessories in America with all that it implies my daughter would probably be at domestic service instead of doing Paris with servants at her command." Let us congratulate ourselves that the light-headed people who by their silly worship of royalty's poor relations indicate a sighing for a court and accessories in this country are not in the majority.

## WILL CHEMISTRY SUPERSEDE AGRICULTURE?

PART IV.

The farmer long ago found that growing clover on land increases its fertility. The chemist long ago found that soils which produce luxuriant vegetation are rich in the compounds of nitrogen. The chemist recently found that clover-growing in some way increases the nitrogen in the soil. The microscope in the hands of a bacteriologist disclosed the living organisms which, attaching themselves to the clover roots, so affect them as to cause the abstraction of nitrogen from the air and its combination in such form as to become available for plant growth.

But bacteria, while very low forms of life, are not self-originating, and it has been found that when sown on land which does not contain the nitrifying bacteria, the tubercles are not probably produced, and no nitrification of the soil takes place. The discovery of the bacteria is useful, for it was immediately suggested that land destitute of this essential may be planted with it by adding to it a few loads of soil per acre from soil in which it is known to be active, as from an old clover field.

The amount of nitrogen thus added is insignificant. Indeed, it is doubtful if the most expert chemist could, by his analyses, detect any increase in the nitrogen in the soil of that field. But now let the farmer sow clover on the soil which may have been too poor for clover to catch, and he is surprised at the way it thrives. The soil added is like the little leaven which a woman took and hid in three measures of meal. The clover grows, the bacteria multiply and nitrogen in quantities is transferred from the air to the soil, and the poor land becomes rich and productive.

Since the *KANSAS FARMER* and its readers are in this inquiry in good earnest and propose to pursue it with a view of either arriving at correct conclusions or ascertaining that present knowledge of the subject is too meagre to form the basis of conclusions; and since this inquiry has been prompted in more than one part of the world by the living microscopic organisms which affect—or might almost say cooperate with—clover and other legumes, it is well to inquire just what is known on this subject. It may be remarked that this information is so new that it has not yet found its way into standard books, but has to be gathered from experiment reports, etc. On the practical side perhaps the most interesting experiments have been made within the past few months at the Ohio State University by F. P. Stump and H. H. Richardson. They give the following summary of results:

1. For the inoculation of any particular legume there is undoubtedly a difference in the efficiency of inoculating material from various sources.  
2. The micro-organism (bacterium) most efficient for the inoculation of any particular legume will be found in soil in which that particular legume has been growing successfully for some years, two or more.

3. It seems that next to this best source is micro-organisms from plants (or soil from which they have been growing) most nearly resembling, in form, structure, manner and period of growth, the plant to be inoculated.

4. While "clover bacteria" have some effect upon peas and beans, this effect is not strong enough to be relied upon, unless perhaps in a soil naturally rich.

5. Infusions or inoculating material from woody legumes seem not to be effective in any perceptible degree on any of the four legumes grown.

Summary of results obtained by eminent American and European investigators up to January, 1892:

1. Legumes in general are able to acquire large quantities of nitrogen from the air during their period of growth.  
2. Root tubercles have been found on none but leguminous plants.  
3. The fact that there is a connection between root tubercles and this acquisition of nitrogen has been clearly demonstrated.  
4. As a rule, the greater the abun-

dance of root tubercles the larger and more vigorous are the plants, and the greater is the gain of free nitrogen from the air.

5. Root tubercles are not normal products of the plants upon which they are formed, but are, in all cases, produced by infection from some organisms which exist in the soil and attach themselves to the young roots.

6. The presence of these infectious organisms in the root tissue stimulates the root cells to more active growth and a mass of new tissue (root tubercle) is formed around the growing or multiplying micro-organisms.

7. It is probable that legumes can avail themselves of the free nitrogen of the air only when certain kinds of bacteria have entered them and caused the production of root tubercles.

8. Legumes which are cultivated in sterilized media and kept free from bacteria during their growth, so as to prevent the symbiosis, and which in consequence have no tubercles, probably do not acquire free nitrogen from the air. Thus cultivated, they behave like the non-legumes, which, as experiments have repeatedly shown, cannot assimilate free nitrogen.

9. It is not yet definitely determined whether different species of microbes are associated with different species of legumes. What is the connection between bacteria and acquisition of nitrogen? what the relation of micro-organisms to the acquisition of nitrogen? are questions yet to be answered.

10. It has not yet been determined whether the microbe itself derives the nitrogen from the air and is then used by the plant for food, or whether the power of assimilating nitrogen belongs to the plant and is only stimulated by the microbes, or whether the power is a function of the combined life of the live organisms growing together.

## THE FOOL-KILLER.

The *Topeka Capital* says: "A New Jersey man who owns 12,000 acres of land in southwest Kansas and says it is not for sale at anything like prevailing prices, writes to the *Buffalo American* *Investments*:

As an outsider, the greatest need of Kansas in my judgment is a good, healthy "fool-killer," and have him enter upon his duties and follow it up until there is a large amount of vacant land left for men who are willing to farm and not be statesmen.

This New Jersey man is a shining mark for both the "knave-killer" and the "fool-killer." He is holding 12,000 acres of land which he does not use and is expecting to grow rich from the increase in its value on account of the industry and thrift of the farmers without whose labors, improvements and productions his 12,000 acres would be as valueless as when trodden by the Indians and the buffalo and no man would have it at any price. This knave, this "outsider" writes his opinion of the necessity of a "fool-killer" to follow up his duties until there is a large amount of vacant land "left for men who are willing to farm, and not be statesmen." Doubtless the ideal farmer in his opinion is the man who toils fourteen to sixteen hours in every twenty-four and shuts his eyes when knaves come to rob him. But this knave is himself such a subject for the "fool-killer" that he seems not to know that besides keeping their eyes open for the schemes of his sort of folks they last year produced nearly twice as much wheat as those of any other State; produced immense surpluses of corn, cattle, hogs, horses, etc., and are to-day reputed to own nearly or about three-fourths of the bank deposits of Kansas, the only State which passed through the recent money panic without a tremor. When, by his incantations, this New Jersey knave shall have invoked the services of the "fool-killer" he will do well to have plenty of arms on his own dishonest person and to have bespoken some favorable consideration from his Satanic Majesty.

The Secretary of Agriculture is in receipt of a communication from Mr. Alfredo Solf, United States Consular Agent at Chiclayo, Peru, stating that by request of several of his farmer friends in that section he desires to obtain information as to where in the United States he can secure representative animals of the best European

breeds of cattle and sheep. He inquires particularly for the Durham or Short-horn, Holstein and Swiss breeds of cattle, and for the best English sheep, uniting large production of mutton with good quality of wool. It may be worth while for those who have such animals for sale to correspond with the Secretary on the subject.

## THE WHEAT SUPPLY AND CONSUMPTION.

Whatever be the extent of the effect of supply upon the price of commodities, certain it is that the excessive wheat supply which continues to come forward is in harmony with the depression in the price. Thus the receipts of wheat at the primary markets of this country for the week ending June 3, 1893, compared with receipts for the corresponding periods of other years, favor low prices. As given by the Cincinnati *Price Current* they were as follows:

1893	.....2,931,000	1889	.....825,000
1892	.....2,816,000	1888	.....1,382,000
1891	.....2,321,000	1887	.....2,945,000
1890	.....1,358,000	1886	.....1,569,000

So, also, the accumulated stocks of wheat in store are surprisingly and unprecedentedly large. Thus, on the first of June, for the period of ten years, the amounts in granary at the principal points of accumulation at lake and Atlantic ports and in transit by water have been in bushels:

1893	1892	1891	1890	1889
70,159,000	29,522,000	17,498,000	22,453,000	20,206,000
1888	1887	1886	1885	1884
26,423,000	43,209,000	34,888,000	40,707,000	18,006,000

If it be estimated that the 66,826,000 people who were eating bread in the United States June 1 each require five and three-fourths bushels of wheat per year, the weekly requirements are found to be almost 7,500,000 bushels, so that the present visible supply is about equal to nine weeks provisions. But the exceptionally large visible supply and the large amounts still coping forward, notwithstanding the low prices prevailing, leads the bears to assume that the reserves in first hands must be very large and enables them to continually depress the market. Their efforts in this direction have been greatly aided by the money stringency.

The most liberal estimates of the growing wheat crop are that, added to the surplus of last year's crop, the United States will enter upon the next crop year with about 500,000,000 bushels available. Of this 390,000,000 will be required to properly feed the people of this country—allowance being made for the usual increase in population. This will leave an exportable surplus of 110,000,000. This is less than half the amount exported during the year ending June 30, 1892, and probably about half of the amount which will be shown for the year which ends with the present month. This, added to the low average condition of wheat in other parts of the world, should mean that better prices will be realized for the incoming crop than those now prevailing. But the fact that a large surplus is carried over will doubtless be used for all it is worth to depress prices during the earlier part of the crop year.

For the ten months ending April 30, 1893 this country imported gold and silver to the amount of \$38,291,052 and exported of these metals \$100,732,424, an excess of exports over imports of \$62,441,374. For the same period our excess of imports over exports of merchandise was \$71,433,928; so that if we had no interest to pay abroad and did not support any of our people in foreign lands, we should yet have a balance of about eight millions to pay to settle our trade balances. In view of this showing from the latest report of the Treasury department how can our anti-silver friends sustain their claim that the shipment of gold is all on account of our silver policy? This inconsistency is emphasized by the fact that during March and April we imported of silver only \$2,156,172, and during the same months we exported the white metal to the amount of \$4,068,240, so that silver helped us out to the amount of nearly two million dollars during these two trying months.

Wheat touched the lowest point of the record last week in Chicago, No. 2 being quoted at 62½ cents, cash.

## WHENCE CAME THE ROAD CRAZE?

Somebody's "literary bureau" is busy promoting the enthusiasm for "good roads." The importance of well-prepared public highways is not easily overestimated and writers have found it easy work to prepare columns and pages of interesting reading on the subject. The question of ultimately paying for these improvements is less often made prominent. But in a recent lecture Mortimer Whitehead, of the National Grange, takes up briefly and in energetic style the several most salient features of the movement. He suggests that—

"Just at this age and year and hour, no one needs to be told that we have a road 'craze' on hand.

"Every magazine or paper, be it local, State, national, political, city, agricultural or religious, that we pick up, has its items long and short, its editorials, its figures and its theories all 'booming' good roads."

"And there is much 'method in this madness.' It has been carefully and skillfully managed. The excitement of the masses of the people has been 'promoted,' as is the applause at the play excited by the paid 'clacquers' who, scattered among the audience, by previous arrangement, clap their hands and start the applause for the actors and their work. Or, it is like the excitement periodically gotten up by our political 'guardians' when an election is to come off, the dear people are 'aroused,' and like a flock of sheep go pell-mell after the bell-wethers.

"Yes, the 'road craze' is fairly on. In Congress, in Legislatures, in conventions, at institutes, before boards of agriculture and at all farmers' meetings the alcohol of the stimulant is doing its work, aided and abetted by engineers, professors and manufacturers of stone-crushers, machinery men and dealers, by millionaire bicycle manufacturers and other 'interested' parties.

"It is proposed to have a new department of the government with a new member of the President's Cabinet. A road department, and a secretary of roads (salary, \$8,000 per year, with buildings, chiefs of division, engineers, clerks, etc., requiring dollars by the million annually to pay them). A government exhibit of roads, road machinery, etc., to be kept permanently at Washington, D. C.—and how many of the people would ever get there to see it?

"The national government is to take a hand in building '1,000,000 miles of permanently good roads,' States, counties and townships are to go into the 'piking' business on a grand scale, and when an innocent farmer asks the cost and who is to pay for all these luxuries, the answer is bonds, bonds, and more bonds.

"I write this in Ohio, and to-day's paper tells of legislative action giving one county in the State permission to issue \$360,000 of road bonds; another \$230,000.

"New York's State Legislature has a modest request for road bonds for \$10,000,000, and Pennsylvania goes one better and has its road bill before its law-makers providing for issuing \$60,000,000 worth of road bonds.

"At the national road convention in Chicago last October the proposition was made for an issue of bonds on national credit to the amount of four thousand millions of dollars (\$4,000,000,000).

"Have we gone crazy, and are we on the road to—what?

"Already the national, State, county, railroad and other bonds of our country amount to thousands of millions of dollars, and they are held in vast quantities by the money lenders of Europe. These bonds are all a mortgage on our industries, on our farms and homes, and the interest must be paid out of the products of our labor. Look up your tax bills and study out how much of the ever-increasing tax goes to pay interest on bonds, and the principal growing larger year by year.

"They tell us we are away behind the other civilized countries of the world in roads. Perhaps we are, but other countries have many more population to the square mile than we, and have been thousands of years growing,

building roads, etc. We are scarcely a hundred years old, and many of our States not a generation old. We are yet, as a nation, in the pioneer stage. We cannot get out of the old log cabin in the clearin', get out all the stumps and stones, have a fine house with all the modern improvements all at once. Many a farmer has been ruined by building a fine house before he could afford it, and a sheriff's sale of the farm paid for it. We would all like many things our means will not permit us to have—finer houses, finer furniture, carriages, etc. We would like to go to Europe, to the World's Fair, but we must count the cost. Philosopher Ben Franklin told us his early experience in 'paying too dear for the whistle.' 'You can buy gold too dear.' Heed the old toll-gate sign, 'Pay as you go,' or else don't go.

"The world has had its 'stone age,' its 'bronze age,' its 'iron age,' its 'age of steel,' and now we have the 'bond-age.' Watch out for the bondage of yourself and children, and don't, even for the sake of better roads, leave those who are to come after us the white slaves and bondmen to those 'who toil not, neither do they spin.'

"Better to bear the ills we have than fly to others we know not of. Better a few weeks of bad roads in the spring than the bondage of debt like a blight forever over us.

"We can, should and will have better roads, and good will come out of our 'craze,' if we don't go stark mad. 'Be sure you are right and then go ahead.'"

## THE CROPS IN THE GRAIN STATES.

Prime's crop report, dated Chicago, June 11, says:

The country from Ohio to North Dakota and the surplus grain-growing States south of the Ohio river have every reason to be satisfied with the fine weather which has prevailed almost uninterruptedly for the last ten days. The sun and the winds seem to have been tempered to the late and backward crops, and now the growing season has commenced, not only in name but in fact. In central and northern Illinois corn planting is finished. The stand is generally fair. There has been some replanting done, but not any more than usual. The early planting is from two to four inches high. There is about 25 or 30 per cent. of the old corn in the farmers' hands. On all tilled land farmers are cultivating their corn and the fields are generally clean. Though the cold, cloudy weather kept the corn back, it had an excellent effect upon the oats, and the general condition of the crop in these areas was never better at this time of the year. Old oats are pretty well cleaned up.

In Indiana they had a great deal of rain until about a week ago, and the ground has been too wet to plant, but the recent fine weather has dried out the land and the crop is about all planted. Along the bottom lands of the Ohio river, however, there is a great deal of corn to plant. What is up looks rather sickly and unpromising. Taking the State as a whole, the general condition of oats is fair, fully as good as a year ago.

Corn planting in Ohio is a little late. It rained in the northern portion of the State almost every day for the last six weeks up to the opening of the present week, but the land has been drying out rapidly this week, and Saturday night will see the crop in the ground. The oats crop looks well, and has made rapid growth this week.

Of course we do not look for much corn from Michigan, even in a good year. The crop has all been planted, but a little later than usual. Oats are coming on finely.

Corn in Missouri is planted. Most of it is up and the stand is generally good. The weather until recently has been too wet and cold for corn. The acreage of oats seems to be a little larger than usual this spring, and the crop is now making rapid growth.

Corn is doing well in Kansas. The acreage of corn in Kansas has been greatly increased this season from the fact that so large an area of the winter wheat has been plowed up and put into corn. The stand is reported as generally good, and recent rains have been of great benefit to it. Oats are doing fairly well.

Nebraska suffered for the want of rain until the first of the present month. Since that time rains have fallen and the crop conditions of the State have greatly improved. The early corn is from four to five inches high. In the first week of June, 1892, not 50 per cent. of the corn was planted. From 20 to 25 per cent. of old corn is still on hand. Oats, however, are pretty well cleaned up.

Iowa has been favored during the last ten days with plenty of sunshine, plenty of moisture and plenty of warmth. Corn is generally all up and cultivating has commenced. Some localities in the State report

oats a little thin on the ground, but all things considered, both the corn and oats outlook is fully as good, if not better, than it was a year ago.

Kansas reports early wheat will be ready to cut about June 25. It is in all sorts of shapes and conditions, from a total failure to a fourth and a half of a crop. Recent rains have helped save what was left from further depreciation.

In northern Missouri wheat is all headed out. Some is short and some long. They had too much rain for a good crop. The shortage varies from 25 to 50 per cent., as compared with last year. Probably 60 per cent. is a conservative estimate.

## Method of Preserving Flour, Etc.

Mr. Ludwig Fromm, of Koltzschbroda, Germany, has obtained a patent (No. 496,780, May 2, 1893) for a new method of preserving farinaceous products. In his specification he says:

"This invention relates to a method of preserving flour and farinaceous products, and consists in the admixture to the substance to be preserved of a powder or 'flour' of hazelnuts. This method of preservation will prove of great value when used in storing up any kind of flour or kindred substances, and also baked goods, such as rusks or biscuits used in the army and navy; and it will also apply in the case of vegetable or leguminous conserves, such as tinned vegetables, soup tablets, peas pudding, and the like. In preparing the hazelnut flour, the kernels are first removed from the shell, and then (preferably after being roasted) are ground or reduced to powder; only the white substance of the kernel, however, is ground. This powder or flour is added to the goods to be preserved—cereals, pulse, or the like—in a proportion varying between 5 and 25 per cent., care being taken that the mixture is as thorough as possible, as it is important that the fatty element of the powdered hazelnuts shall pervade or permeate the whole of the substance. This fat does not become rancid and at the same time acts as a deterrent against insects and caterpillars. The flour so mixed acquires, moreover, a property which enables the bread or other goods made of it to keep much longer than similar goods made of ordinary flour, the fatty or oily element preventing the absorption of moisture to a great extent, and consequently the formation of mold, mildew or similar growths. Besides, the great quantities of albumen and fat contained in the hazelnut pulp enhance the value of the flour or other product as such; as nutritious substances, however good in themselves, will only be fully taken advantage of by the constitution of the body if the albumen and fat they contain are in the normal proportion to the hydrates of carbon."

## Kaffir Corn After Wheat.

EDITOR KANSAS FARMER:—In reply to "A Subscriber," at Rock, Cowley county, would say in all probability he can make a crop of Kaffir corn, if planted in June, after wheat, provided it escapes early frosts and the season is favorable, with no protracted drouths, but he will have to "rustle." Plant on top of ground with drill, not with lister. I presume he means a grain crop. There would be plenty of time to make a forage crop. D. P. N. Council Grove, June 10, 1893.

## Publishers' Paragraphs.

With the third part of "Omega," the work of the French astronomer, Flammarion, which appears in the *Cosmopolitan* for July, the reader is able to grasp something of the great purpose of the author. "Omega" is declared by those who have read the entire work to be one of the most remarkable writings of the century. While pretending to be a novel, it is a work having a deeply philosophical purpose, as is more fully developed in later chapters. It is something that no fairly intelligent person can afford not to read, and is surely destined to become a classic.

Accompanying a very pretty catalogue recently received from R. E. Dietz Co., 60 Lighthouse St., New York city, was the following letter from the Treasurer of the company: "We herewith enclose you sample of the World's Fair edition of our catalogue, of which we have had a large edition printed for distribution at our exhibit at the World's Fair. This is a reproduction of our general catalogue, but reduced in size. Inasmuch as it contains illustrations and full descriptions of our complete line of

lamps, lanterns and oil stoves, we believe it will be appreciated by dealers and consumers. We will be pleased to mail a copy to any one requesting it." A postal card written to them will bring you a very pretty catalogue. Write for it.

SOMETHING NEW IN FENCE MACHINES.—The Carter woven wire fence machine is a complete revolution of the fence business, both in the greatly reduced cost of production and the rapidity with which the work is done. Any farmer can weave his own fence with a \$10 machine at a cost of only 25 cents per rod, thirty rods being an average day's work. The cheapness in cost of manufacture should be an incentive to farmers and stockmen everywhere to adopt the Carter wire fence and discard the old barbed wire system from the effects of which so much valuable stock has been killed or injured. The machine can be altered to use up every rod of barbed wire about the farm if desirable. It will also weave a lining for corn cribs or rat-proof guards for cellar windows. Write manufacturers, Carter Wire Fence Machine Co., Derby, Ohio, for their illustrated descriptive catalogue.

WHAT AN EDITOR READS.—A novelist and editor whose name is a household word in America and Europe, recently remarked, as a friend found him amid a pile of newspapers, "The only periodical I read through is *The Youth's Companion*—and I read that through every week." "For your children, I suppose," said his visitor. "No, for myself," was the reply. "It is a wonderful paper." The announcements of *The Youth's Companion* for 1893 make this story easily credible. Seldom, if ever, has it presented so varied a programme of articles and stories, or so striking a list of eminent contributors. It never ceases to be a young people's paper, but it long since lifted itself to be also a most versatile, instructive and fascinating paper for all the family. One of the marked features this coming year is the appearance of the seven successful stories for which the famous prizes of \$6,500 were awarded. No less than 2,968 stories competed for these prizes. The regular "every-day" stories of *The Companion* will be contributed by over 100 authors, all of them popular, and some of them the best-known story-writers in America. Only \$1.75 a year. *The Youth's Companion*, Boston.

## Gossip About Stock.

Mr. G. F. Miller, President of the La Veta Jersey Cattle Company, of Topeka, and who is assistant superintendent of the Kansas State dairy exhibit at the Columbian Exposition, was in last week, and reports a very satisfactory dairy test in progress at the fair. The La Veta Company will have one cow in the thirty days test; two in the year-olds, and a complete herd in the stock exhibit. He reports further, that while Kansas is not up to some of the older States, yet she is far ahead of nearly all of the original thirteen, and stands well, if not the best, when a comparison is made taking into consideration the amount of money appropriated.

Reports are coming in from the great swine-producing areas of Illinois, Indiana, Iowa, Nebraska, Missouri and our own State, Kansas, verifying the short and unsuccessful pig crop of 1893. Different theories are advanced as to the cause of the shortage. This, in connection with the shortage of beef cattle, practically insures remunerative prices for both hogs and cattle, and that the farmer or breeder who is already stocked up is sure of an increased bank account, while those that yet desire to do so should not fail to attend the Short-horn and Poland-China sale of Mr. L. A. Knapp, near Maple Hill, Kas., on next Friday, June 16. The indications are now that the sale will be a successful one.

## Whitman's Full-Circle Steel Baling Press.

In this issue, on our first-page, we illustrate the celebrated Whitman Full-Circle Steel Baling Press. The Whitman Agricultural Co., of St. Louis, Mo., make the largest and most perfect line of balers made in America. They manufacture steam or belt power, several styles of horse presses, also hand presses, which are used for baling all kinds of fibrous materials. This firm claims the remarkable record of never having been beaten in a contest in this country or any other, and they fully warrant any one of their presses superior in all respects to anything of their class now made. We would advise our readers to write for their descriptive circular, which is handsomely illustrated. There is no machine used about the farm that requires to be as thoroughly strong and well made as a baling press, the strain being very great upon it when at work. The above firm manufacture a large line of farm machinery, including their new Press grain drill, which is meeting with great success; American cider and wine mills, corn-shellers, feed-cutters, horse-powers, broadcast seed-sowers, etc., and will be pleased to furnish any information desired.

Get up a club for the FARMER.

## Horticulture.

### SPRAYING FROM THE HYGIENIC STANDPOINT.

The United States Department of Agriculture has carefully investigated the possibility of deleterious effects upon the consumer from the use of sprayed fruits and has published a valuable bulletin—Farmer's Bulletin No. 7—upon the subject.

The only insecticide sprays, says this bulletin, which are at all dangerous to use are the arsenic compounds, and even here the danger is greatly exaggerated by those not conversant with the facts. Paris green and London purple have for many years been extensively used in this country as insecticides, and a case of fatal poisoning from their use as such has never been substantiated. The only danger lies in having the poison about a farm or plantation in bulk. In the early days of the use of Paris green against the Colorado potato beetle a great deal of opposition was developed on account of the supposed danger, and only recently the sale of American apples in England has received a set-back owing to the supposed danger of arsenic poisoning from their consumption. The question as to whether arsenic may be absorbed by the growing plant in any degree was long ago settled in the negative by the best chemists in the country. Dr. William McMurtrie, formerly chemist of this department, in 1878 showed that even where Paris green was applied to the soil in such quantities as to cause the wilting or death of the plants, the most rigorous chemical analysis could detect no arsenic in the composition of the plants themselves. Other experiments in a similar direction by Prof. R. C. Kedzie, of the Michigan Agricultural college, confirmed these conclusions. It is safe, then, to assume that the only way in which fruit or vegetables can convey the poison to the consumer will be through the very minute quantity of arsenic left upon the edible part of the plant. Against the possibility of such an effect the following facts may be urged:

(1) It would seem at first glance that the use of an arsenical poison upon a plant like the cabbage would be very unsafe to recommend, yet Paris green and London purple are used upon this crop to kill the several species of leaf-eating worms which are so destructive to it, and an absolute absence of all danger where the application has been properly made has been recently shown by Prof. Gillette, of the Agricultural Experiment Station of Colorado, by the following *reductio ad absurdum*:

"\* \* \* Where the green is dusted from a bag in the proportion of one ounce of the poison to 100 ounces of flour and just enough applied to each head to make a slight show of dust on the leaves, say, for twenty-eight heads of cabbage, one ounce of mixture, the worms will all be killed in the course of two or three days, while the average amount of poison on each head will be about one-seventh of a grain. Fully one-half of the powder will fall on the outside leaves and on the ground, and thus an individual will have to eat about twenty-eight heads of cabbage in order to consume a poisonous dose of arsenic, even if the balance of the poison remained after cooking."

(2) In case of spraying apple orchards for the codling moth there is scarcely a possibility of injury to the consumer of the fruit. A mathematical computation will quickly show that where the poison is used in the proportion of one pound to 200 gallons of water (the customary proportion) the arsenic will be so distributed through the water that it will be impossible for a sufficient quantity to collect upon any given apple to have the slightest injurious effect upon the consumer. In fact, such a computation will indicate beyond all peradventure that it will be necessary for an individual to consume several barrels of apples at a single meal in order to absorb a fatal dose even should this enormous meal be eaten soon after the spraying and should the consumer eat the entire fruit.

(3) As a matter of fact, careful microscopic examinations have been made of the fruit and foliage of sprayed trees

at various intervals after spraying, which indicate that after the water has evaporated the poison soon entirely disappears either, through being blown off by the wind or washed off by rains, so that after fifteen days hardly the minutest trace can be discovered.

(4) In the line of actual experiment as indicating the very finely divided state of the poison and the extremely small quantity which is used to each tree, Prof. A. J. Cook, of the Michigan Agricultural college, has conducted some striking experiments. A thick paper was placed under an apple tree which was thoroughly sprayed on a windy day, so that the dripping was rather excessive. After the dripping had ceased, the paper (covering a space of seventy-two square feet) was analyzed and four-tenths of a grain of arsenic was found. Another tree was thoroughly sprayed and subsequently the grass and clover beneath it was carefully cut and fed to a horse without the slightest sign of injury.

The whole matter was well summed up by Professor Riley in a recent lecture before the Lowell Institute, in Boston, in the following words:

"The latest sensational report of this kind was the rumor, emanating from London, within the last week, that American apples were being rejected for fear that their use was unsafe. If we consider for a moment how minute is the quantity of arsenic that can, under the most favorable circumstances, remain in the calyx of an apple, we shall see at once how absurd this fear is; for, even if the poison that originally killed the worm remained intact, one would have to eat many barrels of apples at a meal to get a sufficient quantity to poison a human being. Moreover, much of the poison is washed off by rain, and some of it is thrown off by natural growth of the apple, so that there is, as a rule, nothing left of the poison in the garnered fruit. Add to this the further fact that few people eat apples raw without casting away the calyx and stem ends, the only parts where any poison could, under the most favorable circumstances, remain, and that these parts are always cut away in cooking, and we see how utterly groundless are any fears of injury and how useless any prohibitive measures against American apples on this score."

### Fruit Crops in Missouri.

Secretary Goodman, of the Missouri State Horticultural Society, presents, under date of June 1, the following interesting and instructive report of the fruit crops of his State:

"From over 500 letters received from our best fruit-growers in the State, I compile the following:

"The cold, frosty, rainy, backward spring has again damaged our fruit crop very seriously indeed. I do not know as I say right when I attribute it all to the spring, for last spring, summer and fall were very unfavorable, indeed, to our orchards. The injury to the tree, and vines of one year ago was so great that they did not recover, and a great many orchards did not have a healthy leaf-growth all summer. Of course it was impossible for the trees to form healthy fruit buds without healthy leaves. Therefore we see the bad effects of the past year's injury very perceptibly on all our fruits.

"The strawberries, raspberries, cherries and apples have shown the effects more than anything else. With this bad starter we are not surprised that, after the very unfavorable spring we have no very favorable report to make on the condition of our fruits. Enough is it to say to our fruit-growers that fruit will be scarce all over this Western country, and it well behooves you to take care of every bit of fruit you may have. It will pay you.

"Not one report from this State (or any other State in fact) gives report of a full crop. In fact some run down to an entire failure, and others as high as three-fourths of a crop.

"Wherever the apple made a good growth and the cold rain did not last so long as to wash away all the pollen there will be a fair crop only.

"The late frost killed most of the peaches in southwest Missouri when in bloom, while farther north they were not injured, because not so far

advanced. It has been a year of anomalies. Where we expected much we see very little, and where we expected little, we find much. The year since last June has shown us how little we know about locations, weather, soils, and a thousand other matters in fruit-growing.

"To particularize: The strawberry crop has been light, and will be so all over the State. It is an exception to see otherwise.

"Raspberry vines were injured during the last summer and fall so badly that the crop will not be above one-half a full one at the most.

"Blackberries will be plenty where the rust has not injured the vines. Some were injured by the winter, but not as badly as was expected.

"Grapes, in many places the first buds were cut off by a severe frost, but the second buds have given promise of a fair crop after all.

"Cherries have dropped so badly that we cannot expect more than one-third of a crop. The weakened condition of the trees is the cause in some instances, and cold rain and frost the cause in other cases.

"Plums are nearly a failure, only in a very few exceptional cases.

"Peaches will be a moderate yield in most of the northern and central portions of the State, while the southwest will be nearly a total failure, on account of the freeze during blooming time.

"In the southeastern and southern parts of the State the crop is very spotted. One thing is sure, and that is that all the peaches are killed on the low lands, while the ridges are generally full enough. In some instances the fruits were killed on some farms, and yet on those adjacent there will be a fair crop. We may be sure, however, that there will be no great surplus of peaches this year, and yet the crop scattered all over the State will give us a good many in the aggregate.

"The pear crop does not cut much figure in our general fruit crop, and we will have about one-half the usual amount.

"The apple is our standard and we miss it more than the others, and yet we cannot give as favorable a report on this fruit as we would like. The crop will be very spotted, for the reasons given before. The man who has a fair crop may feel himself fortunate, while he who has less than half a crop may find it more valuable than even a full crop. Not over one-half, and perhaps less than a half crop will be the quota of this State.

"While, therefore, we cannot make as favorable a report of our fruit crop as we expected early in the season, yet we shall have some of all kinds of fruit, so that we shall not go fruit hungry. And yet, the crop being short in all our Western States, it will pay us to take care of all kinds of fruit we may have.

"One word with regard to our fruit exhibit at the World's Fair. It is incumbent upon you to use very diligent efforts to collect, pack and ship to Chicago specimens of fruit wherever they can be obtained. We hope that you will deem it your own business to give a helping hand in this, and spend at least one day in collecting and packing fruits for exhibition."

A correspondent asks for a recipe for canning asparagus.

Some machinery costs more than it saves.

The question is how can we reduce the cost of production.

Keep a good cover on the meal barrel and a cat in each barn.

Farmers must learn the needs of their farms as they do their own.

Try to grow only such amount of crops as you can properly tend to.

### Editorial, Turf, Field and Farm.

April 4, 1890.

GOMBAULT'S CAUSTIC BALSAM.—The experienced trainers of both trotting and running horses are never without the Gombault remedy. It almost entirely supersedes all other articles or means of relieving lameness, bunches or blemishes, and it is more desirable for use instead of all cauterizing or firing, which leaves unsightly scars. Gombault's is an old and sterling remedy, recommended and used by veterinarians. If you cannot find it at your dealers, send to the Lawrence-Williams Co., Cleveland, O., io.

## Entomology.

Conducted by Prof. E. A. Popenoe, State Agricultural college, Manhattan, Kan., to whom queries about insects and specimens for determination may be sent, with request for reply in this paper. Answers will be published as soon as possible, and unless of immediate importance no other reply will be made. Always send several specimens, where possible, with statement of habits observed and, with the plant-feeders, parts of the plant attacked, where its name is not certainly known. Specimens may be packed, if small, in a quill; if larger, in a tight tin or other box, strong enough to prevent crushing in transit, and never loose in a letter. The package, addressed and marked with the name of the sender, without other writing, is mailable at the rate of 1 cent per ounce, prepaid.

### A Cistern Pest--What Is It?

EDITOR KANSAS FARMER:—My cistern is inhabited by a little animal of the insect family. People here call it the water louse, and say there is no way to get rid of it. I have looked for it in my cyclopedia and failed to find it, and tried to exterminate it by cleaning out the cistern and cementing it over, but failed again. I am at a loss to know what to do. Will you be so kind as to tell me something about the animal, and how I can clear my cistern of his presence? Beloit, Kas.

J. W. W.

Without specimens the identity of the insect cannot be established to a certainty. If it is not the common "wiggler," the larva of the mosquito, which should be well known to every one, it is likely to prove to be a "spring-tail," as a species of this group has been observed here to have similar habits to those of the insect complained of. The "spring-tails" belong to the order *Thysanura*, the lowest order of six-footed insects. They have no metamorphosis, and are wingless in all stages of growth. They are usually very small, our largest species measuring a little less than one-half inch. The bodies of most of them are covered with silky scales, which under the microscope are objects of great beauty and delicacy of marking. These scales, like those upon the butterfly's wing, are removed by a touch. The spring-tails receive their name from the peculiar apparatus under the end of the body, consisting of a forked organ, by means of which, when alarmed, they make their well-known leaps, extraordinary, considering the size of the insects. They are found in places more or less damp, most of the species occurring under boards, in chinks, under leaves, or in cellars, hot-beds, wells, cisterns and the like. One, at least, we have found in book cases, and among stored papers, especially where such materials have been piled upon the damp floor in warm, dark, lower rooms or basements. This particular spring-tail has been accused, with reason, of injuring the polished surface of book-bindings, the labels and other pasted portions.

The food of the spring-tails, so far as is recorded, is principally of vegetable tissues, and they sometimes do considerable injury to plants growing in damp places. They multiply in hot-beds and greenhouses, sometimes to a very undesirable extent, and they are not to be encouraged in such places. A small, dirty gray species has occasionally been sent us from western Kansas, where it was found floating in great numbers together upon the surface of pools of water after a rain.

In wells and cisterns the presence of the insect may indicate the presence of a mossy growth upon the wall, or, as seems more likely in the case of our correspondent, where the cistern has been newly cleaned and cemented, of some possible defect in the conductors; or a mass of vegetable matter, as fallen leaves, in traps or eave-spouts, would, under some circumstances, be a sufficient cause.

With the uncertainty as to the kind of insect, and the circumstances connected with the case, the only advice that can be given is to examine the conductors, traps and connections therewith, for the presence of decaying vegetable matter, or for cracks through which the insects might enter from the moist under-ground crevices in which they may breed.

J. W. W. will confer a favor upon the editor of the entomological column if he will send him a number of the so-called "water-lice" in a small, tight tin box with some clean blotting paper folded and wet. There should be no water in the can further than that supplied by the wet paper, and the insects should be allowed abundant room, the slightest pressure being sufficient to crush them.

## In the Dairy.

### The Temperature for Cream.

Miss A. E. Maidment gives the following sensible and practical directions on this important subject:

"In preparing the churn, scald with boiling water, and immediately cool with cold water. If dry before using, treat first with cold water. When the temperature of the churn is reduced to that of the prepared cream it is ready for use. Decide the temperature of cream for churning according to that of the surrounding air. The following table may be safely adopted:

Temperature of air.	Temperature of cream.
61°	55°
64°	56°
62°	57°
60°	58°
58°	59°
55°	60°

"To heat the cream, place vessel containing it in hot water and stir continually so as to warm equally. Be very careful not to warm it too much, or the butter will be injured, and the water into which the vessel of cream is plunged should not be more than 100° F. At any time when the temperature of the air is above 55° take that of the cream over night, and if above 60° cool it by the best means at command. In a covered can it may be hung in the well, or it may be placed in a tub of cold water, or in a dry but cool cellar. It is better to reduce the temperature to a point too low for the purpose (for it can be easily warmed again) than to have it even a few degrees too warm when required for churning. If the cream is too thick for free churning it may be corrected by adding water, which, carefully mingled with it, will help in reducing the temperature, if that is necessary. Cream churns best when yielding three pounds of butter to every gallon. The thermometer (without which dairy work cannot be properly carried on) should be of glass, as most easy to keep clean. It is well to have a good and reliable instrument of the ordinary type hanging in the dairy, to register the changes in the temperature of the air, and to serve as a standard for the glass instruments used with the cream. Having such, do nothing by guess-work; note the conditions affecting your work; do not judge by the season, but only by the temperature of the air."

### A Cow to Each Acre.

One cow to each acre of land in the farm, is the mark set by a few—a very few—of our most progressive dairymen. They have succeeded in doing this, and are inclined to intimate that those who cannot or do not do this are behind the times. Now, let us examine this point for a minute. Intensive farming is all right, and will grow more and more in favor, but we can go far enough to eat up all the profits, even if sales are large. There is a golden mean that brings the most clear money from any business.

A cow to each acre can only be kept by high manuring of land, soiling and heavy outlay of labor. If land is high in price and labor is plenty, then this intensive form of dairying is all right; but on cheap land it may cost less to maintain a cow on two acres than one. She can do her own harvesting half the year. Pasture on fair soil furnishes cheap food usually, and one may lose by undertaking to double the feed grown on such land when it must be harvested for the stock. Progress must always mean increase of profit.

For tilled crops the FARMER believes in intensive farming, varying in degree according to nearness or remoteness from market. When we put labor on land we want the soil capable of making good returns. In dairying the case is somewhat different. If we can raise a crop that requires little or no labor, one that the cows can harvest, it is often the best paying one, even if two or three acres of it are required to keep a cow a year. Until land doubles in value, soiling will not become popular except as it supplements the pasture, and without soiling one cow to each acre is an impossibility.

A writer in *Hoard's Dairyman* thus describes his experience with a hand separator: "I first run separator by

hand. That was last July. Thermometer 90°. Run four days. After the first day I decided to run by proxy. I turned the crank myself the first day. But proxy said that life was too sweet, that he didn't care to kill himself. I then rigged up to run with power. Since then have had no trouble. Used a one-horse tread power with first-class governor. Used a steer of about 700 pounds weight to propel power. Everything runs smoothly, and after making a number of tests with creamer and separator, weighing the milk, cream and butter, and using the Babcock test to determine the amount of butter fat left in the skim milk, I feel willing to say, and say it honestly, that with ten good dairy cows it will pay to own a separator."

### Dairy Notes.

Cows will respond to a change of feed even when the grass is good.

When the cream of different skimmings are put together, it should be thoroughly stirred.

To succeed at dairying requires close attention to business and a thorough knowledge of details.

Good cows and plenty of good winter and summer feed are two necessary things in profitable dairying.

Every farmer or dairyman should grow clover for the milch cows. It has no superior as a cow feed.

Unless butter is sent to market in good shape there is no use in sending it, for there will be no profits attached.

Prof. Henry says the profitable dairy cow is one that will make a pound of butter per day for 200 days, or 250 pounds per year.

An exchange says that the cow that puts her feed on her back instead of into the bucket, had better be converted into beef.

President Gilbert, of the New York Dairy Association, says this is the way he makes premium butter: "As soon as the milk is brought into the creamery, it is put into Cooley cans, 12 per cent. of water added hot enough to raise the milk to 98°, and is then put into the tanks and cooled down to 45° and sets for eleven hours. The cream is ripened for twenty-four hours, being first warmed up to 70° in winter. I churn in winter at 68° and in summer at 66°. As soon as the butter separates, I add cold water to the mass to crystallize the grains, then draw off the mixed butter milk, add more water until the water shows no trace of butter milk. Butter should be at 60° to properly salt and work over. I use three-quarters of an ounce of salt to the pound and pack direct from the worker."

The *American Agriculturist* says: "Those who want to make dairy cows do their best must, in some way, provide clover pasture in summer and clover hay in winter. The cow is doing hard work when she converts her food into milk, and ought not to be required to 'hustle' much for her living. If it takes her all day to get three square meals, she cannot do what she would really like to do in the milk-producing line, but when she stands half deep in fragrant clover and has only to take a few nips for a 'well-balanced ration' and then lies down with a grunt of content and meditatively chews her cud, she will do justice to her pedigree and show what she was made for. Clover seed is high and likely to be higher, but clover seed is the one thing that the progressive farmer must have, no matter what it costs. If he grows his own seed, so much the better, but he must sow it, if he has to buy at the seedsmen's prices."

## The Poultry Yard.

### Poultry Raising.

1. It is not necessary to have any particular breed for success. There is a great deal more in the feed and care than in the breed. But the large Asiatic breeds are the best winter layers; are the best for broilers. The small breeds will lay the greatest number of eggs in a year.

2. The broody hen should get in her work early. Give an interested woman charge of her. Interest her by letting her have the profits, or divide them with her children.

3. Set only well-fertilized eggs; have the hens that are to furnish these eggs selected from the whole flock for their excellence and fence off from the others, and with these hens have thoroughbred roosters in the proportion of one rooster to eight or ten hens—the best you can find anywhere.

4. For eggs for market alone hens do best without any rooster among them

Highest of all in Leavening Power.—Latest U. S. Gov't Report.

# Royal Baking Powder

## ABSOLUTELY PURE

—they lay more eggs and the eggs will not get stale so quickly.

5. It is essential to have the chickens abundantly supplied with fresh water. Fill the vessels twice a day at least and clean them every time they are filled.

6. Feed the flock three times a day. Give them a liberal supply—all they will eat up clean and no more.

7. If abundant water be given no sloppy feed need be. Give for breakfast some wheat and oats in sheaf; for dinner some bran, ground oats and corn meal, moistened a little; for supper duplicate the morning meal, adding a little whole corn in very cold weather.

8. Throw the whole grain in a bed of straw or leaves so they may scratch for it. They must work for their living in order to be healthy.

9. In addition to the above they should have some vegetable food—a rack filled with boiled potatoes, beets, turnips or with raw cabbage. Clover hay and corn fodder and skim-milk are good for them, too.

10. They must have access to sharp gravel and ground oyster shell or they cannot grind their grain. In winter, when they cannot forage for insects and worms, they ought to have meat scraps, cracklings, etc.

11. They must also have a box handy filled with dry coal ashes or road dust to wallow in; it is thus that they keep free from lice.

12. The floor of their house should be dry and covered with leaves from the woods or cut corn fodder. Among this litter their grain food should be cast.

13. Whitewash their house and perches frequently or sprinkle with kerosene oil to prevent lice, and remove their droppings once or twice a week.

14. For every twenty chickens there ought to be 150 square feet of floor space. No more than twenty chickens should be confined in one apartment.

15. The egg and hatching boxes should be removable, so as to be readily cleaned and whitewashed. The feed troughs should never have dirt in them—should be so made that the chickens cannot get their feet in them.

16. The house should face the south. It should not be enclosed in glass, because it is not desirable to have the house warm in the daytime and cold at night. Half the front should consist of sliding doors, to be closed on cold nights and in stormy weather.—*Farm Journal*.

### Poultry Notes.

A woman is the best poultry-man. On account of her inherited nature she seems to be the best adapted to the business.

More money is spent in the United States for eggs than for flour, and yet many farmers take but little interest in the poultry business.

A sick fowl seldom cares to eat, but will drink, so put the medicine in the drinking water. For cholera try a tea-

spoonful of liquid carbolic acid; for indigestion, five drops of tincture of nuxvomica; for roup, a teaspoonful of chlorate of potash; for general debility, use the nuxvomica one day, and twenty drops tincture of iron the next. For little chicks that are weak in the legs use a tablespoonful of phosphate of soda. Give all these remedies in one quart of water. They are easy, cheap and good remedies.

Hood's Sarsaparilla positively cures even when all others fail. It has a record of successes unequalled by any other medicine.

**Strawberries -- Wanted:** To let berry-growers know that our new Robinson strawberry is the ideal for market purposes. Is large, strong, staminate, firm as Captain Jack. 700,777 plants of other well-known varieties for sale. Send for price list. B. F. SMITH, Box 6, Lawrence, Kas.

### The Royal Fruit Picker.



Price \$1.75

Address: W.H. RAUCH, WICHITA, KANS.



**I KEEP COOL**  
inside, outside, and all the way through,  
by drinking  
**HIRES' Root Beer**  
This great Temperance drink;  
is as healthful, as it is pleasant. Try it.

## CONSUMPTION SURELY CURED.

TO THE EDITOR—Please inform your readers that I have a positive remedy for the above named disease. By its timely use thousands of hopeless cases have been permanently cured. I shall be glad to send two bottles of my remedy free to any of your readers who have consumption if they will send me their express and post office address. Respectfully, T. A. Slocum, M.C., No. 183 Pearl Street, New York.

**FAT PEOPLE** reduced by new process, safe, sure and lasting. No drugs. No cure, no pay. Advice free. Ferrine & Co. Boston, Mass.

**CLUB FOOT** Dr. Hartman's treatment for Club Foot. Book free to all afflicted. Address SURGICAL HOTEL, Columbus, O.

**DEAFNESS AND HEAD NOISES CURED** by F. H. Huxey, 222 Broadway, N. Y. Write for book of success.

**PRAY YOUR TREES. \$17 Spray Pump \$5.50**  
EXPRESS PAID, FOR  
MAKES 3 COMPLETE BRASS MACHINES. WILL SPRAY 10 ACRES PER DAY.  
AUTOMATIC MIXER for '03. Best, Cheapest, and Easiest working Spray Pump made. Endorsed by the leading Entomologists of the U.S. A Valuable Ill'd Book (worth \$5.00) "Our Insect Foes" given to each purchaser. SATISFACTION GUARANTEED OR MONEY REFUNDED. Over 2,000,000 in use. One Farmer agent has sold over 200. Insecticides at wholesale prices. Ill'd cat. on spraying free. Mention paper. P. O. LEWIS MFG CO., Catskill, N. Y.

# PILES, FISTULA,

And all other Diseases of the Rectum cured by Drs. Thornton & Minor, Kansas City, Mo., without knife, ligature or caustics—no money to be paid until patient is cured. We also make a specialty of Diseases of Women and Diseases of the Skin. Beware of all doctors who want any part of their fee in advance, even a note. In the end you will find them expensive luxuries. Send for circular giving names of hundreds who have been cured by us, and how to avoid sharpers and quacks. Office, No. 100 West Ninth Street. Rooms 30-31-32. Burker Building.

## The Apiary.

Edited by REV. E. T. ABBOTT, St. Joseph, Mo., to whom all communications relating to this department should be addressed. Inclose a stamp if you desire a reply by letter. We invite questions and communications from any of the readers of KANSAS FARMER who may be interested in bee culture.

### What's the Matter With the Bees?

A subscriber writes:  
"Please let me know through the 'Bee Department' of KANSAS FARMER what to do with one colony of my bees. They did well last season, except they seemed to be killing bees oftener than the other colony. When I examined them in April last they were well stocked with bees, honey and young brood, but as the weather got warmer they did more killing of bees. About the 20th of May I took some of their honey and gave to a weak colony, and placed top box on the hive to give them more room, but they continue their work of killing. I think they kill at least a pint a day. Please let me know what to do with them."

We are at a loss to know what the trouble is with this colony of bees. If the editor of this column could see them for about two minutes he thinks he could diagnose their case without any trouble. As it is, he can only guess at it. Are you sure they have a good laying queen now and plenty of young brood? What do you mean by "killing bees?" They kill off the drones when they are short of honey, but the bees of a colony never kill each other. If worker bees are killed in front of the hive, the probability is they are weak, and having plenty of honey, other colonies try to rob them. Look after this, and if they are being robbed, close up the entrance so only one bee can go in at a time. If they are queenless, they should be given a laying queen at once.

We are perfectly willing to answer any question about bees, but every one who has one or more colonies of bees should have a good book on the subject to learn about just such cases as the above. We will be glad to know more about this colony of bees.

### Honey as Medicine.

Honey is one of the most valuable medicines in the world, and constitutes the principal ingredient of many medical preparations. It is used with the best results in many internal and external diseases; serves as a means for taking powders, for the preparation of salves and the sweetening of medicines generally. It is very beneficial in pectoral diseases, acts as an excellent detergent and as a gentle laxative. In ancient times its free and regular use as an article of diet was regarded as a means of securing long life; and it thus came to be popularly considered as a specific against diseases.

Honey is a sedative of no ordinary power. A friend, who is a practicing physician, mentions one of his patients, whose habits of observation were seldom equaled, having, by the kick of a horse, one of his knee joints badly broken, the pain and anguish being very severe, his daughter offered him some wine or tea. He declined, but said she might give him some honey. Dr. A. remarks: "My own observation justifies the wisdom of his selection. Try it."

Luther Corey, Yorkshire, N. Y., says: "I was taken with bilious and gastric fever, followed by a relapse in the shape of inflammation of the lungs and their surroundings, also congestion of a portion. Until within two or three weeks I was unconscious, and therefore not aware of my condition, at which time I commenced eating honey, and have taken it at all times of the day and night, until I have eaten ten pounds of honey. My cough has subsided and my lungs are healing, much beyond the physician's expectations. Honey is doing the business. I can now walk about the house."

Herr Karl Gatter, a German teacher at Vienna, Austria, assured the writer that his life was saved by the use of honey. He published a small pamphlet on the curative powers of honey, and said: "I, a sufferer from hemorrhages, already given up to despair and at the verge of the grave, was saved by the

wonderful curative powers of honey; but now I am freed, not only from weakness of my lungs, but rejoice in the possession of perfect health."

A leading medical and scientific journal advances the following good points in reference to its use: "But for cane sugar there would most probably not be so many millions of artificial teeth in daily use. As there are, the grape sugar of honey being at once fit for assimilation, whereas cane sugar (one has noticed how the eating of sweets increases thirst!) calls on a laggard saliva to convert it into grape sugar, and rests in nooks and corners among the teeth, fit food and breeding-ground for caries, schizomycetes, sphaeromycetes, and what not, which turn it into acid, the acid acting upon the lime of the teeth, and dissolving them."

The price of honey, years ago, placed it among the luxuries, and sugar, from its cheapness, was substituted for it. "Had the science of bee-keeping," says one writer, "been in its present advanced stage when the sugar cane industry began its rapid growth, the use of sugar would have been considerably retarded by the contemporaneous march of its more wholesome competitor, which then held the field." The present low price of honey and high price of sugar will again turn the tables in favor of honey, if the masses are educated upon its value as food and medicine.

Dyspepsia and biliousness are probably caused more by the use of cane sugar than most of us think; indeed, Dr. Cheshire tells us that if cane sugar be injected into the blood, it is at once excreted, which is not the case with grape sugar. Let us then remember that it is only grape sugar which the system can at once use as heat-giving, fattening food, and this it is which honey supplies ready prepared for us by the bee in nature's laboratory.

We copy the above from the "Honey Almanac," by Thomas G. Newman, of Chicago. If the "Family Doctor" will excuse us for encroaching upon his department, we will give a few recipes in some future number from the same publication.

We find this suggestive note in the *Farmers' Home Weekly*: "Combine bee-keeping with fruit-growing and you can more easily procure two crops from the same land, and this double-cropping is not exhaustive, requires no additional fertilizing, no extra plowing or cultivating. There are few crops which return so much for so little outlay and labor as does the honey crop."

### Destroyed by Fire and Again at Work.

The Price Baking Powder Company, of Chicago, which is known throughout the country for the superior excellence of its baking powder, met with a serious loss on the morning of May 18, in the nearly total destruction by fire of its factory and offices. No sooner had the flames been subdued than the work of restoration commenced, and the company by prudent foresight, having had stored in outside warehouses duplicate machinery, labels and supplies of raw materials in preparation for any emergency, was enabled by energetic management to resume manufacturing within a very few days after the fire, thereby causing its customers but a trifling delay in the filling of their orders. Had the company not been so prepared the delay would have been very serious since it would have required months of time to get new machinery.

It is now forty years since the goods manufactured by this company were first placed on the market, to Dr. Price being due the distinction of having prepared the first can of Cream of Tartar Baking Powder ever manufactured in any country. It was a great discovery, superseding as it did the old method of using cream of tartar and soda separately, to say nothing of saleratus, with which the biscuit of early days was embittered.

The Price Company has no connection whatever with any other baking powder company or manufacturer, notwithstanding representations to the contrary made by other manufacturers whose sole aim is to deceive the public and borrow the good name and fame acquired by the Price Cream Baking Powder, which is known all over the world as the purest and "most perfect made."

No man who does not include the cost of supporting his family can determine profits from his farm.

## TOBACCO HABIT

For sale by all first-class druggists, or sent by mail on receipt of \$1.00. Ask for HILL'S Tablets, and take no others. Particulars free. THE OHIO CHEMICAL CO., 51, 53, and 55 Opera Block, LIMA, O.

HILL'S CHLORIDE OF GOLD Tablets will completely destroy the desire for Tobacco in any form in from 3 to 5 days. Perfectly harmless, cause no sickness, and may be given in a cup of tea or coffee, without the knowledge of the patient, who will voluntarily stop Smoking or Chewing in a few days.

## EASILY CURED

### The Family Doctor.

Conducted by HENRY W. ROBY, M. D., consulting and operating surgeon, Topeka, Kas., to whom all correspondence relating to this department should be addressed. This department is intended to help its readers acquire a better knowledge of how to live long and well. Correspondents wishing answers and prescriptions by mail will please enclose one dollar when they write.

#### The Keeley Cure.

At last the public is getting information concerning the Keeley cure for drunkenness that seems to be reliable. Dr. C. F. Chapman, of Chicago, early last spring obtained the appointment of physician in one of the so-called "Keeley institutes," and after treating several hundred patients in and out of the institute, he reveals the secrets of the system, giving the drugs used and the *modus operandi* of their use.

In a paper of considerable length, published in the *Chicago Recorder*, the Doctor tells us that the drugs used in the Keeley treatment are strychnine, atropine, cocaine, quinine, aloin, hydrastine, muriate of ammonia, permanganate of potash and glycerine. The gold solution so-called is only used for moral effect. Dr. Chapman says: "Five drops of the strychnine solution are drawn into the syringe and then three drops of the gold solution are drawn in and mixed. This produces a golden yellow color, to which attention is called, and the patient is further assured as to the reality of the presence of the gold by the stain left on the skin after the hypodermic needle has been removed."

He further says: "A positive disgust for whisky is in almost, if not in every instance, produced in the following manner: The patient is given a drink of whisky, then the so-called bi-chloride of gold solution—really a solution of strychnine—is injected in his arm, but at the same time and without his knowledge, he receives one-tenth grain of apomorphia. It takes but a comparatively short time for the emetic to produce its effects; more or less violent emesis is produced, and the patient, soon associating the in-taking of the whisky with the subsequent disagreeable and sickening vomiting, acquires a positive disgust for the liquor and is not able to keep it on his stomach."

As apomorphia is one of the most violent emetics known in medicine, it will be readily seen why the man gives up his whisky so graciously. It is puked out of him in such a savage manner that he soon wishes he had not taken it.

Dr. Chapman further tells us that he often gave the patients one-eighth of a grain of strychnine by injection four times a day, in addition to one-fourty-eighth of a grain every two hours by the mouth, until eight doses had been given in a day. In some cases this very dangerous dosing was followed by a continual state of tremor, going sometimes into spasms. In some cases the spasms were so marked that chloral hydrate had to be given to antidote the spasms.

In the *Medical News* of May 6, Dr. Evans, another Keeley man, reports 291 cases treated by the Keeley method, out of which 158 relapsed and eighty-eight went insane.

So we begin to see that all is not gold that glitters, and all is not serene and successful in the Keeley camps. If Dr. Chapman's statements are true as to the enormous dosage with most deadly drugs, then all conscientious physicians must cry, halt! And if Dr. Evans' statement of the proportion that go back to liquor and to the madhouse is true, then all lovers of their kind must also cry, halt! An assault with drugs may be as murderous as an assault with bullets. And when the Keeley men, whose private and pecuniary interest serves to keep their mouths closed as long as possible, begin to break away and reveal to the public the secret workings and final results of Keeleyism, the public may well hesitate about contributing any more money towards the production of relapses and insanity.

#### How to Quarantine Mosquitoes.

A writer in the *Indian Medical Record* informs a waiting world that this most pestiferous of all insects can be kept entirely at bay without the use of screens or bars by simply pouring three or four drops of the oil of cloves on one's pillows at night.

If the Indian breed is anything like the Kansas breed it will take a barbed wire fence and plenty of No. 50 wire screen in addition to the oil of cloves and cardamoms to keep off these blood-thirsty savages.

Canada has spent \$200,000 since last summer in erecting sanitary fortifications against a little pest called the cholera germ,

and still Goldwin Smith clamors for annexation to the United States, hoping thereby to obtain better quarantine.

#### Notes.

A good dressing for burns consists of old linen dipped in sweet cream, or sweet milk in the absence of cream.

Report comes from Bloomington, Ill., that four persons recently died there from overdosing with antipyrine, given to cure la grippe. The drug is dangerous and is used far too frequently and freely.

The *Sanitary Era* is a splendid text-book (or journal), from the pages of which "The Family Doctor" has selected texts for the preaching of a good many sanitary sermons. It is a good sanitary psalmody, as well.

If our readers who are afflicted with what is commonly called itching piles will leave off entirely the use of coffee many of them will get well without further ado, so say Brown-Sequard and other authorities on nervous diseases.

The great Chinese wall of bigotry and intolerance, erected a hundred years ago by the allopathic doctors against their brothers of the homeopathic belief, is gradually but surely being broken down. Dr. Lawson Tait, of Birmingham, England, the foremost abdominal surgeon in the world, is credited with the following manly and creditable utterance: "In 1874, as a struggling young specialist, I made up my mind that a qualified young practitioner was a person to whom I was bound to give my services in consultation, regardless of his views on the intricacies of *materia medica* and the uncertainty of therapeutics, and I declared my intention of meeting homeopathic practitioners just as I would others. I was threatened with ruin and covered with contumely, but I remained steadfast to my resolution, and I have lived to see all (or very nearly all) of my neighbors follow my example, and to know that this reform has spread nearly all over the country."

The balance of trade was heavily against the United Kingdom of Great Britain and Ireland in 1891. The imports amounted to \$2,177,000,000 and the exports were \$1,545,000,000, leaving a balance of \$632,000,000, which the people of the islands had to get from some other source. No doubt the interest on foreign investments amounted to several times this sum.

If you would the piggies please, be sure to plant a patch of peas.

### SEALED PROPOSALS

For all Labor and Material Required in the Construction of an Assembly Room Addition to the Institution for the Deaf and Dumb at Olathe, Kansas.

Sealed proposals will be received at the office of the Board of Public Works of the State of Kansas, at Topeka, Kansas, until 2 p. m., Monday, July 3, 1893, and opened immediately thereafter, for all labor and material required in the construction of an assembly room addition to the institution for the deaf and dumb at Olathe, Kansas, under the provision of the Senate Bill No. 50, approved March 10, 1893, in accordance with the drawings and specifications prepared therefor by Seymour Davis, State Architect, copies of which may be seen at the office of the Board of Public Works, State Capitol grounds, after June 19, 1893.

Each bid must be accompanied by a certified check for a sum not less than 5 per cent. of the amount of the proposal, made payable to S. M. Scott, President of the Board of Public Works, State of Kansas, which sum, it is agreed, shall be retained and kept by the State of Kansas in liquidation and judgment for damages that may be sustained by the State through the successful bidders if they fail to enter into a contract and give the required bond on or before July 10, 1893.

The right is reserved by the board to reject all bids if it be deemed in the interest of the State so to do.

No proposals will be received after the time above designated.

Each proposal will be enclosed in an envelope, sealed and marked: "Proposals for work and materials required for the completion of an assembly room addition to the institution for the deaf and dumb at Olathe, Kas.," and addressed to Wm. Wykes, Secretary Board of Public Works, State of Kansas.

Companies or firms bidding will give their individual names, as well as the firm name, with their addresses.

The attention of all bidders is called to chapter 114 of the session laws of 1891, which they are expected to comply with in all State contracts.

All bidders are invited to be present at the opening of bids, either in person or by attorney.

S. M. SCOTT, President.

WM. WYKES, Secretary.

THE "WESTERN SETTLER" IS A NEW PAPER. TELLS ALL ABOUT THE WEST. Will be sent free to you and your friends. Address JOHN SEBASTIAN, Gen. Ticket and Passenger Agent, Chicago, Rock Island and Pacific Railroad, Chicago, Ill.

CANCER Can be cured by Drok Method. No knife, no pain. Book free. Address PINORRE & TREADER, 24 Wabash Ave., Chicago.

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.

ROTATING MULE.—We have a mule, 7 years old and blind in the left eye, that, when turned loose, will turn round about a dozen times before starting off.

Answer.—An examination might find an enlargement on one side of the mule's head interfering with the brain, but more likely it is only a habit contracted in the early days of its blindness.

SWEENEY.—I have a mare, 5 years old, that got sweened in the left shoulder four weeks ago. I have used liniment, but it has done no good.

Answer.—If your mare is lame, rub on your liniment with the hand twice a day until the skin gets sore, then stop a few days.

SMALL LUMPS ON COW.—I have a cow that broke out in small lumps, not so large as a pea. She licks and rubs till the places are raw.

Answer.—Give the cow a heaping tablespoonful of the following powder twice a day: Sulphur, 8 ounces; Epsom salt, 8 ounces; nitrate of potash, 4 ounces; mix.

LAME MULE.—I have a mule, 9 years old, that is lame in one hind leg. There is no heat or soreness that I can find, but he stands with his foot out to the side and turns the sole up.

Answer.—Although you give symptoms enough, they are hardly enough to the point to enable me to decide, but the fact that the lameness is worst at starting and then grows better after traveling, indicates disease of bone, probably bone spavin; and, as mules are subject to rheumatism, it is quite likely there is a complication of the two.

Horse Owners! Try



GOMBAULT'S Caustic Balsam. 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.

MARKET REPORTS.

LIVE STOCK MARKETS.

Kansas City.

June 12, 1893.

CATTLE—Receipts, 4,371 cattle; 240 calves. Almost the entire run consisted of Texans. Top prices were 12 1/2 cents lower than last Monday, and the lower grades depreciated even more.

Table with columns: No., Wt., Pr., No., Wt., Pr. for DRESSED BEEF AND SHIPPING STEERS.

O. F. COWS.

Table with columns: No., Wt., Pr., No., Wt., Pr. for TEXAS STEERS.

TEXAS COWS.

Table with columns: No., Wt., Pr., No., Wt., Pr. for TEXAS CALVES.

INDIAN STEERS.

Table with columns: No., Wt., Pr., No., Wt., Pr. for COWS.

STOCKERS AND FEEDERS.

Table with columns: No., Wt., Pr., No., Wt., Pr. for HOGS—Receipts, 2,766.

PIGS AND LIGHTS.

Table with columns: No., Wt., Pr., No., Wt., Pr. for REPRESENTATIVE SALES.

SHEEP—Receipts, 6,696.

Table with columns: No., Wt., Pr., No., Wt., Pr. for CATTLE—Receipts, 14,000.

HOGS—Receipts, 22,000.

Table with columns: No., Wt., Pr., No., Wt., Pr. for SHEEP—Receipts, 10,000.

GRAIN AND PRODUCE MARKETS.

Kansas City.

June 12, 1893.

In store: Wheat, 965,453 bushels; corn, 126,912 bushels; oats, 50,311 bushels, and rye, 5,387 bushels.

WHEAT—Receipts for forty-eight hours, 13,500 bushels. A bearish and draggy market was had. There was fair speculation among the professionals, but very little outside demand.

CORN—Receipts for forty-eight hours, 63,500 bushels. Market dull and lower under the influence of increased receipts. The offerings the best for a long time, and buyers in consequence backward and bearish.

white, 34@35c; No 3 white, 33 1/2@34c. Sales: No. 2 mixed, 3 cars local, early at 34c, later 5 cars local at 33 1/2c, at the river 2 cars early at 37 1/2c.

OATS—Receipts for forty-eight hours, 10,000 bushels. For this grain as well as corn the market was slow and weak. A good many on sale, and buyers picked around and only took the best offerings.

WHEAT—Receipts, 18,000 bushels; shipments, 67,000 bushels. Market weak and sold down 1 1/2 @ 1 1/2c. Cash, No. 2 red, 62c; June, 62c; July, 63c @ 65 1/2c, closing at 63 1/2c; August, 64 1/2c @ 67 1/2c, closing at 66 1/2c; September, 68 1/2c @ 69 1/2c, closing at 68 1/2c.

CORN—Receipts, 414,000 bushels; shipments, 262,000 bushels. The market closed 3/4c lower. No. 2 mixed, cash, 36 1/2c; June, 35 1/2c; July, 36 1/2c @ 36 3/4c, closing at 36 1/2c; September, 38c.

WOOL—Receipts, 290,000 pounds; shipment's, 139,400. Unchanged. Medium—Missouri and Illinois, 18c; Kansas and Nebraska, 17 @ 18c; Texas, Arkansas and Indian Territory, 8 to 12 months, 17 @ 18c; Montana, Wyoming and Dakota, 16 @ 17 1/2c; Colorado, New Mexico and Arizona, 17 @ 18c; Coarse—Missouri and Illinois, 16 @ 17c; Kansas and Nebraska, 15 @ 16c; Texas, Arkansas and Indian Territory, 14 @ 15c; Montana, Wyoming and Dakota, 13 @ 14c; Colorado, New Mexico and Arizona, 12 @ 14c. Tub-washed, choice, 27c.

Cash quotations were as follows: WHEAT—Receipts, 22,600 bushels; shipments, 248,000 bushels. No. 2 spring, 64 1/2 @ 64 3/4c; No. 3 spring, 61 @ 62c; No. 2 red, 64 1/2 @ 64 3/4c.

WHEAT—Market was dull; demand fair, and holders offer moderately. No. 1 California, 5s 10 @ 5s 11d per cental [50.852 to 50.864 per bushel]; red western spring, 5s 1 1/2d per cental [50.75 per bushel]; No. 1 red western spring, 6s 4 1/2 @ 6s 5 1/2d per cental [50.93 to 50.942 per bushel]; No. 2 red winter, 5s 7d @ 5s 8d per cental [50.816 to 50.828 per bushel].

CORN—Market quiet and demand moderate. Mixed western, 4s 2d per cental [50.566 per bushel]. 1 cental—100 pounds.

HIGGS COMMISSION CO., Receivers and Shippers of Grain, 413 Exchange Building, KANSAS CITY, MO.

Only authorized Grain Agents of Kansas Alliance Association. Liberal advancements made on all consignments. Market reports furnished on application, free.

HALE & MCINTOSH, Successors to Hale & Painter, Live Stock Commission Merchants, Kansas City Stock Yards, Kansas City. TELEPHONE 1564.

References:—Inter-State National Bank, Kansas City, Mo.; National Bank of Commerce, Kansas City, Mo.; Bank of Topeka, Topeka, Kas.

JOHNSON-BRINKMAN COMMISSION CO. Grain, Mill Products, Etc. ROOM 328 EXCHANGE BUILDING, KANSAS CITY, MO. Telephone 2623. Proprietors Rosedale Elevator.

HORSES AUCTION. Kansas City Stock Yards Horse and Mule Depot. W. S. TOUGH & SON, Managers.

Philip Jagode & Co. Successors to DAVID SCULL & CO., WOOL. No. 12, 14 and 16 Letitia Street, PHILADELPHIA. Consignments and Correspondence Solicited.

CASH ADVANCES MADE. Refer by permission to Independence National Bank, Philadelphia. Girard National Bank, Philadelphia.

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or shoe would last a little longer if it had a little patching done to it, and yet it is thrown away because of the inconvenience and expense of taking it to the shoemaker.

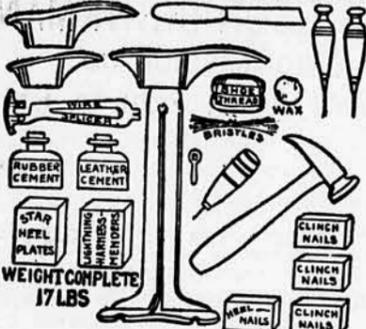
**MANY A RUBBER BOOT**  
has been rendered useless by reason of a nail-hole in the sole, and you never could think to take it to the shop for repair.

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is made uncomfortable by a leak in the seam and nothing at hand to stop it.

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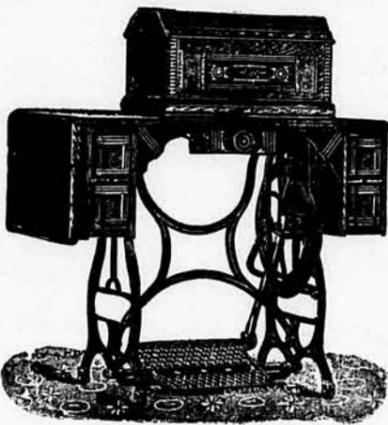
	Cattle and calves.	Hogs.	Sheep.	Horses and mules.	Cars.
Official Receipts, 1892.....	1,571,155	2,397,477	438,268	32,505	97,462
Slaughtered in Kansas City.....	727,181	1,805,114	218,309		
Sold to feeders.....	213,923	4,290	29,078		
Sold to shippers.....	446,501	586,563	48,269		
Total sold in Kansas City.....	1,388,405	2,395,937	296,346	15,974	

C. F. MORSE, General Manager. E. E. RICHARDSON, Secretary and Treasurer. H. P. CHILD, Assistant Gen. Manager. E. RUST, Superintendent.

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If You are Thinking of Buying

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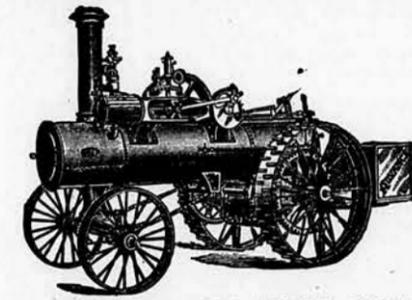
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