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THE BUSINESS OF WOOL GROWING.

The KANSAS FARMER believes that the best thing for wool growers to do is to hold on and raise both more and better wool. There is no more wisdom in wool growers becoming discouraged and selling out because of dullness in trade and low prices than there would be for farmers to change their business because wheat and corn sell low. It requires time for things to adjust themselves to changing conditions, but they always get right in the end. It may require two or three years to get trade matters evened up again; but the fact that we are even now exporting more than we are importing is evidence that this country is on the safe side and that our business is paying us better than it is any other country. Under the general demand for tariff revision something seemed necessary. An effort was made, but the two houses of Congress did not agree upon the House bill and a conference committee finally recommended the Senate bill. Experience of wool growers under the new bill has not been satisfactory. The reduction of duty on wool had the effect to greatly increase the importation of foreign wool, which, of course, took the place of our home grown product, and a reduction of price naturally followed. Had the duty been increased instead of reduced, the object of the change—to reduce revenue—would have been accomplished and prices would have remained unchanged or, at least, they would not have been lowered any. But taking off part of the duty so greatly increased the quantity of foreign wools brought into the country that, even under the lower tariff, the amount of revenue received greatly exceeded that under the higher tariff, and also reduced the price of American wool. To make this plain, let us demonstrate it by a simple statement. Suppose that under a tariff duty of 15 cents a pound the importation is one thousand pounds of wool. In that case the revenue received would be one thousand times 15 cents, or \$150.

Now, let us reduce the duty to 10 cents a pound, and that (giving the foreign producer the benefit of 5 cents to the pound) stimulates to a larger importation; foreigners bring in two thousand pounds, in place of one thousand under the 15 cent tariff. The revenue received under the 10 cent tariff is two thousand times 10 cents, or \$200, which is \$50 more than was received under a tariff that was 50 per cent. higher.

The tariff act of 1883 has had precisely that kind of effect. The object of the law was to reduce the public revenues. A great many people seemed to believe that the way to reduce customs revenue is to reduce the tariff duties, but this one year's experience has taught them better. The mistake is now recognized by most of the people, but the Democratic party in Congress refused to restore the old tariff rates on wool. Mr. Converse, of Ohio, a Democrat, introduced a bill for that purpose in the House, but, although his party had a majority of about seventy five members, and all the Republicans favored the bill, still Mr. Converse could not obtain votes enough to pass his bill. And that party at its national convention in Chicago, in July last, declared in favor of still further reducing the tariff; so that, so long as the Democratic party controls either house of Congress there is no ground for hope that prices of American farmers' wool will materially advance unless, indeed, the growers should kill off their sheep and quit the busi-

ness, giving control of the market to foreigners. The present Congress holds until March 4 next, and the Congress which is elected this fall will not convene until the first Monday in December, 1885. In any event, then, we must pass over one more year without any increase in the tariff duties on foreign wool, and hence we need not expect any material change for the better in the selling price of American wool.

And whether any higher rates of duty will be imposed by the Congress to be elected this fall depends on the politics of a majority of members. Republicans are pledged to raise the tariff on wool; so, if a majority of the members elected this fall are Republicans, the wool tariff of 1867, or its equivalent, will be restored, if, in the meantime, the Senate has not become Democratic, and if, also, the new President is not a Democrat. The opinions of the two parties on this subject are so different that it will require both houses of Congress and the President to be of the Republican party before duties will be raised, and it will require as complete a Democratic ascendancy to insure a further reduction. The Republican theory is to make the tariff duty high enough to operate as a protection to the home producer. That is the reason that such a tariff is called a protective tariff. The Democratic theory is, to levy tariff duties for revenue only. Money to run the government and pay public expenses must be raised, and the Democratic doctrine is to collect the necessary amount from duties on imports. But the protection idea meets no favor in that party.

We see, then, how uncertain is the prospect of a restoration of the old rates, or, in indeed, of any increase of the present rates. We see, also, that among the possibilities of the near future is a reduction below the present standards. That would operate to increase the competition for foreign wool growers, but it may not further decrease the price of American wools. The demand for woolen goods is now increasing, and that demand must continue to increase naturally because of increase of population and every year American manufacturers are enlarging their facilities for making goods cheaply, which operates to the advantage of the home producers of raw materials. While it is reasonable to expect better prices for our wool if a Republican Congress and President are elected for the next term, yet it is not necessarily expected that prices for wool will go below present quotations should the Democrats be in full control. Such may be the effect; we cannot tell; all we can reasonably depend upon is, that unless duties levied on foreign wool are increased above what they now are, our wool growers need not expect any better prices for their wool than they are now receiving.

Our opinion is, that this very question of tariff is going to put Protectionists in a majority in the next House, and a Protectionist in the Presidential office. In that event, our wool growers will be protected against further reductions anyway, and it would be strange if immediate steps were not taken to give our American wool growers the benefit of really protective duties.

Taking all things into consideration we do not believe it wise for our sheep men to become permanently discouraged simply because of low prices. Periods of depression come in all lines of business. We all must bear our part of the common burdens. There may be good reasons why a man should cut down his flock, or indeed, go wholly out of

the business; but we do not regard the present low prices as one. If a wool grower is well situated for conducting his business, the best thing he can do, in our judgment, is to study out and apply methods by means whereof he can produce better wool, more of it and at less expense. It may be that one can sell off a third part of his sheep and then do better with the remaining two-thirds. How to do this will require attention to breeding, feeding, housing and driving. The owner must study the necessary changes so that with a little more attention and better care he can raise more wool and better on less sheep. Let the wool grower as well as the wool manufacturer improve his methods. The great problem is to lessen the cost of production. There are many things which can be avoided that are now costing money; many things may be lopped off or changed to be more useful and less expensive. The quality of feed, the kind, and its expense; shelter, range; these and other matters connected with the handling of sheep may undergo a thorough reformation to the great benefit and advantage of the owner.

We agree with the *Breeders' Gazette* that "men are now living and owning sheep who can recall eras of discouragement to their business fully equaling in intensity that now confronting them. Experience has taught these men how to best recoup themselves against the misfortune of temporary low prices and delayed sales, and it may be confidently predicted that but few of them will fail to profit by the lessons of the past. Men who, as late as 1869—more than two years after the wool tariff of 1867 went into effect—saw thousands of good Merinos sold at \$1 per head, and who shortly afterwards saw the same animals and their progeny bringing more than double that sum, are not likely to fail in calling those experiences to their aid just now when the owners of sheep find less encouragement in the markets of the country than seem to be held out before their contemporaries in other live-stock interests. * *

"I on't sacrifice your sheep. If you have a surplus cull them carefully, keeping the best, and put the remainder in good condition for bringing the best price the market affords. The wisdom of such a course has been vindicated in times of similar depression in the past, and is quite sure to find no exception in the near future of those who, by economy and prudence, tide themselves over the shoals of the present situation."

Anderson County Fair.

Special correspondence KANSAS FARMER.

Anderson county is enjoying a season of unusual prosperity this year. Immigration is pouring in, real estate advancing rapidly, and an era of improvement is manifest, both in Garnett and the county. The large crops and the marked improvement of live stock in the county made it a fit opportunity for holding the most successful fair ever held in the county. The twelfth annual fair, held at Garnett last week, was one of the best-attended county fairs the writer has yet had occasion to visit, and it was a financial success. Every department made a large and creditable display except in the department of farm products and fruits, which, though small, was characteristic for its superior quality.

In the horse department there were twenty-four exhibitors, making the largest showing ever made in the State at a county fair. The largest display was made by

Johnson Bros., Sugar Valley, who have a Norman horse establishment.

The cattle show was not large, but a creditable display of superior Short-horns was made by Walter Latimer, who is the leading Short-horn breeder of this part of the State. A good lot of Galloways and their grades was shown by J. S. Goodrich, of Linn county.

The swine department was one of the attractive features of the fair. There were eighty-two entries in this department, exhibited by the following breeders: Poland-Chinas, by Jas. Bell, Abel Bell, J. J. Wardell, Sam'l Gilbert, Hon. S. T. Roach and N. S. Risdon, of Garnett; also by J. A. Davidson and W. B. Higdon, Richmond, Franklin county. The Berkshires were represented by B. F. Douthett, Thos. Gowdy and J. J. Wardell, Garnett; and the Golden Durock or Jersey Reds were shown by Capt. Geo. Sinclair, of Equity.

The handsomest and most attractive display of the fair was that of textile fabrics by the ladies of the county. It is doubtful whether it was ever surpassed in the State.

I have not attempted to outline a complete notice of the entire exhibits of this fair—simply calling attention to the most attractive features. The only feature deserving criticism was the licensing of all kinds of gaming devices, which resulted in large loss to a number of over-sharp boys and smart grangers, who paid for their experience by being fleeced. Never bet on another man's game. HEATH.

Rice County--Fruit, Crops, etc.

Kansas Farmer:

In traveling through eastern Kansas and some of the Eastern States, we often hear the remark—"I would not like to live in western or central Kansas because they can not raise fruit;" and I have often wondered whether fruit could be raised out here in Rice county. Yesterday it was my pleasure to visit the farm of Dr. G. Bohrer, two and a half miles southeast of Chase, this county. This farm is a revelation. In 1874 he says he could not have traded it for a Texas pony, and to-day it would take many a thousand dollars to buy it. After dinner at his hospitable home we were invited to visit his orchard, and imagine our surprise when the first trees we saw were large pear trees loaded almost to breaking down with as fine pears as one ever sees. The varieties raised are Bartlett and Flemish Beauty. Then a walk through his apple orchard revealed the fact that he will have from 500 to 800 bushels of apples that would make an eastern fruit-grower proud. It has never been my pleasure to see a finer orchard or one that was loaded with finer fruit, he having selected the choicer varieties.

He tells me that when he was setting out the orchard his neighbors often asked such questions as—"Does your mother know you are out?" and made fun of him in other ways; and to-day, while he has apples to sell at a big price, they are the buyers. The fact is thoroughly demonstrated that anything can be raised here that can be grown in a temperate climate.

Wheat is the big crop here, although this year the corn crop is simply enormous. It is raining every few days and the ground is in fine order for plowing for wheat, and the farmers are making good use of the time. The increase of the wheat crop on the farm of Dr. Bohrer by the use of the Smith Roller Attachment is a splendid advertisement for that machine and will be the cause of a large sale in this county. Yours truly, H. Lyons, August 25.

The Stock Interest.

PUBLIC SALES OF FINE CATTLE.

Dates claimed only for sales advertised in the KANSAS FARMER.

September 30—Clay Co., Mo., Short-horn Breeders' Association Liberty, Mo.

October 2—C. S. Eichholtz, Wichita, Kas, Short-horns

October 16—Clay County (Mo.) Short-horn Breeders, at Liberty, Mo.

October 22—First Annual Short-horn Sale of Capital View Stock Farm, at Topeka Fair Grounds.

November 6—S. E. Ward & Son, Short-horns, Kansas City, Mo.

November 18 and 19—T. W. Harvey, Short-horns, at Fat Stock Show, Chicago.

November 20—Jos. E. Miller, Holsteins, at St. Louis, Mo.

May 20, 1885—Powells & Bennett, Short-horns, Independence, Mo.

CATTLE DISEASE IN KANSAS.

Letter From Gov. Glick, and Report From State Veterinarian.

STATE OF KANSAS,
EXECUTIVE DEPARTMENT,
TOPEKA, August 23, 1884.

To the Public: The Texas or Splenic fever has been brought into the State of Kansas, and large numbers of cattle have been affected by it, and many animals have died. Also, pleuro-pneumonia has broken out in several places in the State of Illinois, and there is danger that some of the diseased cattle may have found their way into the State of Kansas. It is very important that the people should understand the nature of those two diseases, and be on their guard against their introduction and dissemination. I have therefore requested Dr. A. A. Holcombe, the Veterinary Surgeon of this State, to prepare for publication and distribution a description of each of said diseases, with such treatment and suggestions as he might offer. In accordance with said request, he has furnished the following.

G. W. GLICK.

TEXAS OR SPANISH FEVER.

Texas fever is a disease affecting cattle; communicable from one to another under certain circumstances; specific in character, and often appears as an epizootic, as is the case this year. The disease may be said to have its home in all that country lying along the Gulf; but that the territory of permanent infection is widening, and gradually extending northward, seems evident from the report of Dr. Salmon's researches in the matter. In this district nearly all the cattle native to that country are infected with the poison of the disease, and strange as it may seem, they do not appear to suffer from the infection; but when carried north are capable of infecting a large percentage of the northern cattle with which they come in contact with this fatal scourge. Northern cattle take the disease from simply crossing the trail made by the southern cattle, by being shipped in cars which they have occupied, and by grazing on the same ground. But the northern cattle, when affected with this disease, are utterly incapable of infecting others, the virus losing in its second generation the power of further transmittal. So that, while it is one of the most fatal of all known diseases, it is not the most difficult to control, nor consequently the most dangerous; for if the natives of the north are kept away from the southern animals, even but a short distance, there is no danger whatever; and as is well known by a long experience and many observations by as many individuals, the sick and dying natives of the north may mingle with the healthy with the utmost impunity. Not less peculiar, perhaps, is the fact that frost destroys the virus and arrests the further progress of the disease, so that new infection is required each year in this State, else the disease does not appear. In former years it was believed that the disease would not withstand the influence of an altitude of about 5,000 feet; but this year the disease has made its appearance at even higher alti-

tudes, and is no doubt to be attributed to the quick transportation of southern cattle to distant northern points by rail. It would therefore seem to be an established fact that the time formerly occupied in driving through from the south to the north eliminated largely, if not entirely, the Spanish fever virus.

Lastly, a winter at the north seems to effectually rid the southern animal of his power to affect others, and it is believed, by some, that this animal then becomes susceptible of re-infection by southern cattle, and that he is just as likely to succumb to its ravages as is the northern native.

SYMPTOMS.

Spanish fever rarely or never occurs in Kansas until about the 20th of July; usually, if at all, after this date. If exposure to the disease takes place earlier in the season, the poison seems to lie dormant in the system until the advent of the hot days of July, no matter how long a period this may be; but if exposure happens after the 20th of July, the period of incubation is short, varying from about seven to fifteen days. Dullness, hanging of the head, drooping of the ears, loss of milk, dragging of the hind feet, arching of the back, straddling of the hind legs, trembling of the muscles of the flank, loss of appetite, rapid breathing, passage of a dark-colored urine, bloody, dry, hardened manure, moaning, grinding of the teeth, loss of sensation, staring of the eye, inability to rise, and, finally, death, often in from four to six hours to as many days, are the symptoms as they generally present themselves. An important aid in making out the disease is the variations shown by the thermometer. Before the appearance of all other signs the body temperature rises, and often reaches 107 3-5 degrees at the outset of the disease. When recovery sets in, the temperature falls, and it does also if the patient is about to die. I have seen one case in which it fell to 93 3-5, or about 8 degrees below the normal, a few hours before death.

POST MORTEM APPEARANCES.

Since the opportunity for making post mortem examinations is generally offered early in this disease, confirmation of the diagnosis may be had by opening those which first die. In the great majority of cases, the meat of the animal dead from Spanish fever is darker in color than healthy meat; the fat is yellowish-brown; the spleen greatly enlarged, soft, and full of blood; the liver congested, sometimes brittle and easily torn, while the gall-bladder is distended with fluid; the urinary bladder is full of a dark-colored urine; the kidneys are often congested; the second stomach usually hard and dry; the small intestines more or less congested and discolored, while the lining of the fourth stomach is often ulcerated. The spleen should always be weighed, for if it weighs more than 1½ pounds, it is enlarged. The meat rapidly undergoes decomposition, hence post mortem examinations should be made immediately after death.

TREATMENT.

Place the infected herd on a large free pasture, with shade if possible, and plenty of water. Do not drive nor excite either the sick or the seemingly healthy animals. Relieve constipation by a full dose of Epsom salts—1 lb. in half a gallon of water—and by green corn; give 60 to 120 drops of carbolic acid in an ounce of oil every six or eight hours, and use plenty of crude carbolic as a disinfectant. If the sick are so wild as to require throwing before medicine can be given, the doses of carbolic should be omitted. Quarantine measures are not necessary, except through southern cattle are in the herd, then these last named animals should be cut

out from the natives and strictly quarantined until after frost.

Respectfully yours,
A. A. HOLCOMBE,
State Veterinarian.

Topeka, Kas., August, 1884.

CONTAGIOUS PLEURO-PNEUMONIA OF CATTLE.

As the term indicates, the lungs and the pleura are the seat of this disease. It is not generally considered to be an inflammatory disorder, and in so far as local lesions are concerned they are usually confined to an exudation of a lymph into the loose connective tissue of the lung substance, and into the cavities surrounding the lungs, where it floats in a thin, watery, amber-colored fluid, or unites the lungs to the ribs, diaphragm and heart sac. Occasionally the sac inclosing the heart is distended with fluid containing the same kind of coagulated lymph. The disease is usually confined to one lung, but may affect both. One attack often renders the animal insusceptible to a second. During its course the disease generates a specific virus which is capable of inoculating other animals of the same species with the same disastrous malady; nor does this virus seem to lose any of its vitality by passing from animal to animal. Furthermore, it is carried in the air for at least 300 feet, and on clothing, hay, straw, cars, boats, diseased meat, etc., and may be preserved in stables for months.

PERIOD OF INCUBATION.

The period which elapses from the time the animal is exposed until the disease begins to show signs of development, varies from 12 to about 120 days. A rise in the temperature of the body, which is to be detected by the clinical thermometer, is the first sign of the disease which can be detected. The natural temperature in cattle is about 101 degrees F.; so that when the thermometer registers above 102 degrees F., in an infected district, the animal may be considered in the suspected list.

SYMPTOMS.

But the first symptom to attract attention is, as a rule, the presence of a short, dry, husky cough, of such a peculiar nature as to be always remembered, which is first heard in the early morning, or while the animal is drinking. At this time, the appetite falls off a little, and chewing of the cud is less active than common. Instead of breathing 14 or 15 times to the minute, the respirations vary from 20 to 30. The expiration of air from the lungs is often accompanied by a faint moan or grunt. The cough grows more frequent, harsh and painful; the back is slightly arched, the coat looks dead, and feels rough and harsh to the touch, while in places it stands erect; pressure along each side of the back-bone, especially in the neighborhood of the loins, and in the spaces between the ribs, causes pain and flinching. The loss of milk is marked, from the appearance of the first severe symptoms, until it is finally suspended at the height of the malady. The patient loses flesh rapidly, the temperature of the surface of the body varies, the extremities being alternately hot and cold. Sometimes, but by no means always, a slight discharge takes place from the nose. The pulse is rapid, and usually weak and thready. During the development of these symptoms the lungs are undergoing changes which may readily be detected by the expert in chest diseases; for by reason of the exudation of lymph the air cells in the lungs are crowded upon and admit but a small quantity of air to the affected parts; the pleura becomes roughened and thickened, thereby giving rise to the peculiar friction sound of pleurisy. In the second stage the lung becomes solid in part, and no air enters the small

cells—a condition to be detected by the dull sound of percussion and the loss of the murmur of healthy respiration. The temperature varies now from 103 degrees to 106 degrees F., and the pulse runs from 60 to 100 beats per minute, and is quite weak. The extremities are cold; the front legs are apart, so as to facilitate breathing, which becomes more and more labored; the appetite is entirely lost; the milk dried up; the passages from the bowels hard and dark-colored; the urine scanty and high-colored, while drinking causes hard and painful coughing. The patient is loth to move, seldom lies down, but stands, with distended nostrils, moaning at every respiration, while from the eyes and nose is discharged a thickish, yellow fluid, and the breath is hot and offensive. All these symptoms grow worse from day to day, as the disease invades the previously healthy lung; breathing is effected only by the greatest effort; the pulse is so small and weak as scarcely to be felt; the skin clings to the wasted frame of bones; dropsy of the dewlap takes place; the patient is scarcely conscious of his surroundings, but stands and grinds the teeth; the abdomen fills with gas; diarrhoea sets in, followed soon by a seemingly painless death.

COURSE AND TERMINATION.

Of course there are many variations of minor importance from the case described above, which would be considered a typical one; but they are not sufficiently great, as a rule, to cover or mask the true nature of the disease. Often death may occur early in the disease from an obstinate diarrhoea or other complication; in other cases the patient recovers, after a long period, a measure of his former health, and may even be fattened for beef; while still others may begin with such mild symptoms and with such slight evidences of the disease as to deceive all but an expert. As a general thing it can be said that the disease runs the most rapid course in young, vigorous animals, and that a short period of incubation almost insures a rapid course. As a rule, death takes place in the second stage of the disease, and is due to loss of function of the lung, gangrene, diarrhoea, or gradual loss of strength from high fever, etc. Even in the mild cases, where the animal appears to recover, the lungs remain diseased and the subject is long capable of infecting others. In nearly if not in all cases a post mortem examination shows the old lesions months and years after the attack.

PERCENTAGE OF LOSSES.

The percentage of deaths is greatest at the beginning of an outbreak, when it often reaches from 60 to 90 per cent. of the animals infected. Later on, when the virus seems to have lost much of its virulence, the mortality may fall as low as 15 or 20 per cent. Other losses are to be taken into consideration beside the dead. There is the loss of milk, which is a very important item in a dairy country; the loss of time, medicine, care, condition (which is equivalent to a certain amount of food), and the privilege of replacing the dead by new purchases.

MEANS OF DIAGNOSIS.

Contagious pleuro-pneumonia is to be distinguished from simple pneumonia largely by its history. If the animal has come from an infected district, or on infected cars, boats, roads, etc.; if the disease develops slowly and without regard to the weather or other causes; if other cattle take it from the newly purchased, then there can be no question as to the nature of the malady.

POINTS TO REMEMBER.

This disease does not develop spontaneously. Cattle raised in Kansas, or those which have been here for six months, and during that time not in contact with cattle from the east, cannot have the disease. Tuberculosis and bronchitis, caused by worms, may readily be mistaken for pleuro-pneumonia.

TREATMENT.

No treatment should be permitted in Kansas, except the destruction of every diseased animal, every exposed animal, and everything which could possibly convey the infection.

Very respectfully,
A. A. HOLCOMBE,
State Veterinarian.
Topeka, Kas., August 23, 1884.

In the Dairy.

Why Butter is Salted.

If the question, "Why is butter salted?" were asked a considerable number of persons, the most probable reply would be, "Oh, to keep it!" or, "Because every one else does." But that every one does salt butter, and the same butter does not keep, together with another fact, that the poorest butter is always abundantly salted, seems to point to a conclusion that salting butter does not have nearly so much to do with its keeping qualities, as does understanding some of the conditions that influence the keeping qualities far more than the salt. Occasionally we find a butter-maker who can make a butter so fine, and salt it so exactly that it will steadily improve in flavor as the months and years roll on; but the average maker, salt or no salt, is forced, by the rapidly changing character of his compound of butter fats and salt, to find a market and sell fresh-made butter. It would seem if salt were a preservative of butter, that all the lessons that are published in the *Country Gentleman* could better be said in one word—salt. But the experience of all makers is that there are conditions of age, temperature and practices of churning to be first taken note of, before the salting stage is reached, or else a butter will result that no age will ripen, or to which time will add no more delicate and exquisite aroma.

Occasionally one hears of a case where butter was kept for a long time, and without loss of flavor; but that it gathered new flavors, or was increased in market value, excites our curiosity. But when one does find butter of considerable age of good flavor, it will always be found that it was most skillfully made of the best materials, and kept at a very low, uniform temperature, and thoroughly excluded from the air; and that salt played second part in its keeping, is evidenced by the usually well made butter, well salted, but by neglecting to keep at a low temperature, and protected from the air, it spoiled within a few days.

Butter is essentially an animal oil—its principal parts being stearin and palmitin, the same as the tallow of the kidneys; but in addition it does contain liquid fats, peculiar to it, and giving butter its distinctive characteristic. That these liquid oils, minute in amounts, are liable to quicker decomposition than the other fats composing the main part of the butter, we have no direct proof; but as in the case of the Danish exhibit of unsalted butter at the Centennial, made three years before, we may conclude that the different elements of butter are equally good keepers.

Then we must look to some other cause for butter not keeping, and for some reason why salt is not a preservative agent. In the usual store butter, we find the butter charged with abundant traces of buttermilk, and the result is, that the butter soon becomes rancid, unless it is kept at a temperature so low as to wholly arrest any chemical changes that would otherwise take place. Buttermilk contains about, or nearly, 10 per cent. of solid matter, the largest part of which is casein or cheesy matter, together with milk sugar and the like. Casein will soon begin to ferment, if left in its natural state, unless the agency of heat is introduced to "cook" it—and all the sooner if the butter is made from acid cream. It is true we salt the curd in cheese, but the curd has been thoroughly cooked; the digestive principle of rennet has been introduced to change its nature, and lastly it is put under great pressure, and then bandaged and painted with grease, to exclude the air. But with the caseous matter in the butter it is different, and having had no check put upon it, nor the gases which it will develop cooked out, the salt fails to correct it, and the butter is soon off-flavor, rancid, and lastly worthless.

So good an authority as Prof. John Voelcker says of casein "that when exposed it undergoes a ferment, and causes a partial breaking up of the fats of butter, which resolves them into their constituents—the acids, and these

give rancidity * * * but when milk is scalded, the casein becomes in part insoluble, and the decomposition is longer in taking place." And, again, "the keeping of the butter is attributed to exclusion of the casein from the butter by washings with fresh water, several times repeated, and then working out the surplus moisture," giving first to scalding curd or casein to render its action latent, and of more slow decomposition, as in the case of scalded cream, and second to thorough washing of butter made from ripe cream, as the real reasons for butter keeping well, but does not mention salt once as the chief agent in making a long-keeping butter.

It is not my purpose to declare against salting butter, for in a secondary place salt has its uses in butter-making; but to try to show that good, long-keeping butter is dependent upon something else than salt to give it staying qualities. Salt may for a time disguise imperfections in butter, but between a salt taste and a genuine butter flavor there is a wide gulf; while he who depends upon salt to bridge over the period between manufacture and consumption, will often find himself without short connections.

That there is no standard for the uniform salting of butter, and all degrees of saltiness are called for by the consumer, proves that there is a greater demand for salt in butter from the education of habit, than from the real needs in the preservation of the table fat. Butter may need salt to some extent to absorb surplus moisture, and mayhap "pickle" (as in the case of beef and pork) the membranous matter that it is asserted exists in the milk; but if the cream is churned when "ripe," not sour, and before the acids have commenced their work upon the fatty oils, and the butter is thoroughly washed from its sugar and caseous matter, the agency of salt to keep the product will become less to be relied upon—and found wanting—and the consumer more often delighted with a clear, pure butter, in contrast to a butter kept with salt, but odorous with butyric acid.—*J. G., in Country Gentleman.*

The Mission of the Creamery.

The man who would banish the creamery from Iowa, who would turn time ten times backward in its flight, is not a philanthropist, an economist nor a safe counselor, but an enemy to progress. Farmers should study the problem thoroughly and intelligently. Look ahead. The creamery will "live or die, sink or swim, survive or perish" upon your decision or course of action. The creameries cannot run without cream, cream cannot be had without cows, and the cows will go to the plains or the butchers' block unless you decide squarely that the creameries must grow and prosper. Don't be afraid of overstocking the market. Don't refuse to patronize unless you get always the price you think you ought to have. Instead of asking more for cream than the market will justify, study how to get from each cow on your farm 200 quarts of cream next year instead of 100 this year, then 200 quarts at 18c average will be far better than 100 at even 22c average—a price too high to expect, for the reason if we can not produce butter cheap enough that it may be a common article on the table of the workingman and tradesman, we limit the demand and cripple our business. Besides such a course as this would strike a death blow to the Butterine. Indeed only one other thing would be necessary in the preparation of its funeral, viz.: Such legislation as would require every tub of butterine to "stand on its own bottom," to sell on its own merits, in other words require those who make it, and those who sell it, and those who use it on hotel and boarding-house tables, in restaurants and bakeries to announce the stuff for just what it is. In this event the public indignation will be aroused against these vile compounds, a higher appreciation for genuine butter will be awakened and a more healthy market will set in. Such a course too, will drive out this rancid unsavory dairy butter that has found its way to market under many difficulties. However loathsome butterine, oleomargarine, etc., may be to us, it is little if any worse than poor butter. While there may be and doubtless are, nitric acid and base oils in the former, there are also injurious and decaying substances in the latter. "Let him that is without sin cast the first stone." Let every class of people support the creamery and demand of them in return, clean, fine butter.—*Prof. Johnson.*

BREEDERS' DIRECTORY.

Cards of three lines or less, will be inserted in the Breeder's Directory for \$10.00 per year, or \$5.00 for six months; each additional line, \$2.00 per year. A copy of the paper will be sent the advertiser during the continuance of the card.

CATTLE.

J. M. MARCY & SON, Wakarusa, Shawnee Co., Kas., breed Thoroughbred Short-horns of fashionable families. A few yearling bulls and young cows left for spring trade. Correspondence solicited.

BROAD LAWN HERD of Short-horns. Robt. Patton, Hamlin, Kas., Prop'r. Herd numbers about 120 head. Bulls and Cows for sale.

ALTAHAM HERD. W. H. H. Cundiff, Pleasant Hill, Cass Co., Mo., has fashionable-bred Short-horn Bulls for sale. Among them are two R. E. of Sharons and one aged show bull. None but the very best allowed to go out from this herd; all others are castrated.

U. P. BENNETT & SON, Lee's Summit, Mo., breed-ers of THOROUGHBRED SHORT-HORN CATTLE, Cotswold sheep, Berkshire swine, Bronze turkeys and Plymouth Rock chickens. Inspection invited.

POWELL BROS., Lee's Summit (Jackson Co.) Mo., breeders of Short-horn Cattle and pure-bred Poland-China Swine and Plymouth Rock Fowls. Stock for sale. Mention this paper.

W. A. POWELL, Lee's Summit, Mo., breeder of the W. Poverty Hill Herd of Thoroughbred Short-horn Cattle. Inspection and correspondence solicited.

WALNUT PARK FARM, Frank Playter, Prop'r. Walnut, Crawford Co., Kas. The largest herd of Short-horn cattle in Southern Kansas. Stock for sale. Correspondence invited.

A. HAMILTON, Butler, Mo., Thoroughbred Galloway cattle, and calves out of Short-horn cows by Galloway bulls, for sale.

W. M. D. WARREN & CO., Maple Hill, Kas., importers and breeders of Red Polled Cattle. Stock for sale. Correspondence solicited. R. R. station St. Marys, Kas.

HOLSTEIN CATTLE AND SHROPSHIRE SHEEP bred and imported by Jos. E. Miller, Ellwood Stock Farms, Belleville, Ill.

J. W. LILLARD, Nevada, Mo., Breeder of THOROUGHBRED SHORT-HORN. A Young Mary bull at head of herd. Young Stock for sale. Satisfaction guaranteed.

W. M. P. HIGINBOTHAM, Manhattan, Riley Co., Kas., Proprietor of the Blue Valley Herd of Recorded Short-horn Cattle of the best families, and choice colors. Also High Grade Cattle. Offers some choice bargains in Bulls, Cows and Heifers. The growing of grade bulls for the Southern and Western trade a specialty. Correspondence and a call at the Blue Valley Bank is respectfully solicited.

PLEASANT VIEW FARM, Wm. Brown, Lawrence, Kas., Breeder of JERSEY CATTLE of the best strains.

OAK WOOD HERD, C. S. Eichholtz, Wichita, Kas. Live Stock Auctioneer and breeder of Thoroughbred Short-horn Cattle.

Hereford Cattle.

E. S. SHOCKEY, Lawrence, Kansas, breeder of Thoroughbred Hereford Cattle. Three cows and 11 bulls for sale. Also Grade bulls and heifers for sale.

W. C. MCGAVOCK, Franklin, Howard Co., Mo., Breeder of Thoroughbred and High-grade Hereford and Short-horn cattle. 150 head of High-grade Short-horn Heifers for sale.

F. W. SMITH, Woodlandville, Mo., Breeder of Thoroughbred Hereford Cattle. Dictator 1989 heads the herd. 50 Grade Bulls for sale.

GUDGELL & SIMPSON, Independence, Mo., Importers and Breeders of Hereford and Aberdeen Angus cattle. Invite correspondence and an inspection of their herds.

CATTLE AND SWINE.

HILLSIDE STOCK FARM, W. W. Waltmire, Carbondale, Kas., breeds Thoroughbred Short-horn Cattle. Recorded Chester-White Swine a specialty.

WOODSIDE STOCK FARM, F. M. Neal, Pleasant Run, Pottawatomie Co., Kas., breeder of Thoroughbred Short-horn cattle, Cotswold sheep, Poland-China and Berkshire hogs. Young stock for sale.

J. E. GUILD, CAPITAL VIEW STOCK FARM, Silver Lake, Kansas, Breeder of THOROUGHBRED SHORT-HORN CATTLE and POLAND-CHINA SWINE. Correspondence solicited.

DR. A. M. EIDSON, Reading, Lyon Co., Kas., makes a specialty of the breeding and sale of thoroughbred and high-grade Short-horn Cattle, Hambletonian Horses of the most fashionable strain, pure-bred Jersey Red Hogs and Jersey Cattle.

H. B. SCOTT, Sedalia, Mo., breeder of SHORT-HORN CATTLE, POLAND CHINA HOGS, COTSWOLD and SHROPSHIRE SHEEP. Send for catalogue.

W. H. & T. C. EVANS, Sedalia, Mo., Breeders of Short-horn Cattle, Berkshire Hogs, Bronze Turkeys, Plymouth Rock Chickens and Pekin Ducks.

SHEEP.

E. COPLAND & SON, DOUGLASS, KANSAS, Breeders of Improved American Merino Sheep. The flock is remarkable for size, constitution and length of staple. Buck a specialty.

R. HOFFMAN, Wichita, Kas., breeder of SPANISH MERINO SHEEP. Bargains in registered Rams.

D. W. MCQUITY, Hughesville, Pettis Co., Mo., breeder of SPANISH MERINO Sheep, Berkshire Swine, and eight varieties of Poultry. Eggs, \$1.50 per setting.

G. B. BOWWELL, Breckenridge, Mo., has 1,100 Merino rams for sale. 250 of them are registered. His seven best stock rams shear from 27 lbs. to 33 lbs., weigh from 145 lbs to 180 lbs.

A. F. WILLMARTH & CO., Ellsworth, Kas., breed-ers of Registered Spanish Merino Sheep. "Woolly Head" #5 at head of flock. Choice rams for sale. Satisfaction guaranteed.

SAMUEL JEWETT, Independence, Mo., breeder of American or Improved Merino Sheep. Vt. Register. The very best Choice stock for sale. Over 300 extra rams. Catalogues free.

SHEEP.

C. F. HARDICK & SON, Louisville, Kansas, breed-ers of REGISTERED AMERICAN MERINO SHEEP, Having good constitution and an even fleece of fine, dense wool. Fine wool a specialty. Come and see our flocks or write us.

MERINO SHEEP, Berkshire hogs and fifteen varieties of high-class poultry of the best strains. Bucks a specialty. Harry McCullough, Fayette, Mo.

SWINE.

CATALPA GROVE STOCK FARM, J. W. Arnold, Louisville, Kansas, breeds Recorded

POLAND-CHINA SWINE AND MERINO SHEEP. The swine are of the Give or Take, Perfection, and other fashionable strains. Stock for sale in pairs not related. Invite correspondence or inspection of stock.

A. J. CARPENTER, Milford, Kansas, breeder of A. Thoroughbred Poland-China Swine. Stock for sale. Inspection and correspondence invited.

W. M. PLUMMER, Osage City, Kansas, breeder of Recorded Poland-China Swine. Young stock for sale at reasonable rates.

L. W. ASHBY, Calhoun, Mo., Pure English Berkshire shires. Imported Royal Toronto 4577 at head of herd. Inspection solicited.

R. B. BALDRIDGE, Parsons, Kas., breeder of THOROUGHBRED RECORDED POLAND CHINA SWINE. Stock for sale. Inspection of herd or correspondence inv.

ROBERT COOK, Iola, Allen county, Kansas, Importer and breeder of Poland-China Hogs. Pigs warranted first-class. Write.

POULTRY.

EGGS FOR SALE—Of Light Brahma and Black Spanish Chickens, by Mrs. M. Waltmire, Carbondale, Kas.

N. R. NYE, breeder of the leading varieties of Choice Poultry, Leavenworth, Kansas. Send for circular.

NEOSHO VALLEY POULTRY YARDS—Established, 1870. Pure-bred Light Brahmas, Partridge Cochins, Plymouth Rocks. Egg in season. Stock in fall. Send for circular. Wm. Hammond, box 199, Emporia, Kas.

WAVELAND POULTRY YARDS, Waveland, Shawnee county, Kansas. W. J. McColm, breeder of Light Brahmas, Plymouth Rocks, and Pekin Ducks. Stock for sale now. Eggs for hatching in season; also Buff Cochins eggs.

MISCELLANEOUS.

STOCK FARM FOR SALE—640 acres, together with stock and farm implements. Address J. H. Reints, Odin, Barton Co., Kas.

J. G. D. CAMPBELL, Junction City, Kansas, Live Stock Auctioneer. Sales made in any part of the United States. Satisfactory reference given.

S. A. SAWYER, Manhattan, Kas., Live Stock Auctioneer. Sales made in all the States and Canada. Good references. Have full sets of Herd Books. Complete catalogues.

Branch Valley Nursery Co., Peabody, Kas. The Russian Mulberry and Apricot specialties. Nurserymen and Dealers, write for wholesale prices. E. STONER & SON.

YORK NURSERY COMPANY (Established 1870). Nurseries and Green Houses at FORT SCOTT, KANSAS. Largest Stock of Nursery and Green House Plants in the West. BEAUTIFULLY ILLUSTRATED CATALOGUE now ready. Mailed to applicants free.

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The KANSAS Mutual Life Association. OF HIAWATHA, KAS.

The only Co-operative Life Association offering Absolute Protection in Old Age.

Agents wanted. Send for Journal and Leaflet, giving full information, to J. E. MOON, Sec'y.

THE LINWOOD HERD

SHORT-HORN CATTLE

W. A. HARRIS, Linwood, Kansas.

The herd is composed of VICTORIAS, VIOLETS, LAVENDERS, BRAVITH BUPS, SECRETS, and others from the celebrated herd of A. Cruickshank, Sittylon, Aberdeenshire, Scotland. GOLDEN DROPS, and UNYS, descended from the renowned herd of S. Campbell, Kinellar, Aberdeenshire, Scotland. Also YOUNG MARYS, YOUNG PHYLISES, LADY ELIZABETHS, etc.

Imp. BARON VICTOR 42824, bred by Cruickshank, and Imp. DOUBLE GLOSTER head the herd.

Linwood, Leavenworth Co., Kas., is on the U. P. R. R., 27 miles west of Kansas City. Farm joins station. Catalogues on application. Inspection invited.



Sowing Wheat in Corn Fields.

Whether it is good to sow wheat in corn fields depends, as we have often shown, upon the condition of the ground, previous cultivation, etc. On farms where the rotation method is adopted, corn ground is always well prepared, and if the corn is properly worked, the ground is clean and fit to receive wheat seed without re-plowing. In such cases corn nearly always follows the plowing under of a good clover or other grass sod. An Ohio farmer writes: "I have raised from land the first plowing after turning sod, one hundred bushels of ears of corn, then cut thirty-three bushels of wheat per acre, and the next season a heavy crop of clover, thus getting three heavy yields from one plowing. I have found that the fertility of soil depends very much upon its susceptibility to the influence of the air. If productive soil is compressed it becomes non-productive. If sterile soil is lightened up—if clay—and held so that the air will penetrate it, it becomes productive; hence, soil in which the spongy sod yet remains, is not subject to exhaustion."

Our Kansas farmers have not yet adopted the rotation method generally, but they are coming to it, and they will never obtain best results until they follow it regularly. When it is intended to sow wheat in corn stubble, it is best to remove the corn stalks from the field so that there will be no trouble with shocks. It does not take long to haul the stalks away on a low sled or stone-boat made of two or three heavy plank that slide on the ground. One or two men go along and cut the stalks, laying them in bunches on the ground, and other men with the sleds haul them to the place of shocking. They may be stood against a fence or other temporary structure, or may be shocked in long shocks five or six feet wide and as long as desired. "It is not so much of a task to remove the corn crop as some suppose. There are some advantages in it aside from the opportunity to sow the grain. The stalks will cure with less damage by weather beating; husking can be carried on more rapidly, and the fodder can be bound and stacked without further use of the team in hauling." The long shocks may be left standing without injury a long time. The corn may be husked out as fast as needed, or it may all be done in a short period and the fodder stacked. In any case the ground is cleared for wheat, and there is no need of going into the field afterwards to haul off the corn shocks. It gives all the ground for wheat, and that is a good deal. Suppose there are one thousand corn shocks in a wheat field and every one of them covers a circular space six feet in diameter. These one hundred bare spots would amount in the aggregate to nearly one acre of ground. There would be no additional labor required in seeding these places when the other ground was sown, but the wheat raised on them would pay the cost of removing the entire crop.

But if the ground is not in number one condition do not put wheat in it at all. Better plow it up and sow to rye for pasture, and when it is knee high next year, plow it under and prepare for grass or wheat again.

Different tribes of Indians use different sorts of poison for their arrow points. The Comanches use the juice of the Spanish bayonets; the Apaches bruise the heads of rattlesnakes with bits of deer liver, allow it to putrefy and dip their arrows in it. The Moquis irritate a rattlesnake until he bites himself, and moisten their darts in the blood. Poisons made from the stings of bees and from ants are used by other tribes.

Oil from the grape seed is now used in Italy for illuminating purposes. As extracted at

Modena, thirty-three pounds of grape seed yield about thirteen quarts of oil, or about 18 per cent. The seeds of the black grape yield more oil than the white varieties, and those of young vines are more prolific than old stocks. The color of the oil is golden yellow, and 25 per cent. is lost in the process of purification.

The National Greenback Party.

A State convention of delegates of this party was held in Topeka last week. A full State and electoral ticket was nominated, and a resolution was adopted authorizing the State central committee to fuse the electoral candidates with either the Democratic or Prohibition parties—whichever would offer the best hopes of success.

The following is the State ticket: For Governor, H. L. Phillips, of Miami county; for Lieutenant Governor, John W. Breidenthal, Labette county; for Chief Justice Supreme Court, H. P. Vrooman, Shawnee county; for Associate Justice, J. D. McBrien, Chautauqua county; for Treasurer, D. H. Heffelbower, Miami county; for Auditor, W. H. T. Wakefield, Dickinson county; for Attorney General, H. L. Brush, Elk county; for Secretary of State, J. C. Hibbard, Shawnee county; for Superintendent of Public Instruction, Miss Fanny Randolph, Lyon county.

Following is the platform of principles adopted:

First resolution indorses Butler and West and the national platform adopted at Indianapolis, May 28, 1884.

Second—We believe that the public lands of the government ought to be open to settlement, and that the people ought to have the right to settle upon said lands without molestation. And we denounce in unmeasured terms the unjust and brutal expulsion of peaceable citizens from government lands by United States soldiers in the interest of monopolies and cattle kings, who are left in undisturbed possession.

Third—We demand as a matter of right that all public lands not actually occupied by Indian tribes under legal treaty be at once opened to settlement for homesteads for actual settlers, especially the lands known as Oklahoma and Cherokee strips.

Fourth—Viewing with alarm the rapid accumulation of our public domain by subjects of foreign countries, we do especially reiterate the demand that the alien ownership of land individual or corporate shall be prohibited.

Fifth—We demand the abolition of the present system of convict labor; that the laws be so constructed to prevent the labor of convicts from coming into competition with the labor of free men at prices that will bring the State less returns than free labor should receive for like work.

Third—We are in favor of a more stringent railroad law than the one now upon our statute books, which shall tend to reduce freights in justice to the producers and carriers of the State. And that rates should be based on actual cost of construction and maintenance, not on watered stock as now done, and that we denounce the false pretense that rates have been lowered by the Railroad Commissioners schedule, when such is not the case.

Seventh—That we believe that advancing civilization of the past quarter of the nineteenth century demands that women should have equal pay for equal work, and equal laws with man to secure her equal rights, and she is justly entitled to the ballot.

Eighth—Reiterating the resolution of the Greenback convention at Emporia in 1878, we emphatically pledge our earnest support to such legislation as will tend to the entire suppression of the illegal liquor traffic in our State as now provided by law, and we demand the strict enforcement of all statutory laws.

Ninth—We denounce the action of the Republican party in so manipulating the currency as to defraud and cheat the Union soldiers, and that for a score of years through red tape laws compelling the disabled soldiers and the families of the slain to be humble supplicants for recognition of their rights.

Tenth—Reiterating the demand of our national platform, we are in favor of restoring the right of issue of all the money of this country to the United States government, where it properly belongs under the constitution; and are unalterably opposed to continuing the national interest bearing debt of the United States as a banking basis.

The Scouring of Wool Where Grown.

We have made frequent reference to the complaints of manufacturers as to the loss to which they are subjected, growing out of the condition of the wool placed upon the market. Those among them, especially, who have come from Europe, transplanting their industries to this side of the water, are very bitter in their comparisons. One of the most successful of these, an Englishman, and within a week: "The manner in which I am compelled to buy my wool in this country subjects me to great loss. You have few or no scourers here whose brand on a wool sack is unquestioned. Consequently, I am obliged to buy the wool I need with five or seven sorts in a bag, and lose on the sorts I cannot use half my profit in the start. In Liverpool, I could go to my broker and buy exactly the wool I wanted to work, and could calculate my loss in sorting or consumption to a pound. One of my greatest drawbacks is my constant loss from the large per cent. of my wool I cannot use, and so sell at great loss."

There are before us as we write, two letters upon the topic we are discussing, both received within thirty days. One is from the President of a State wool-growers' association, not second to any in importance in the Union. This writer has been a sheep-breeder and wool-grower all his life. He has had more than any other one man, perhaps, to do with the introduction of the best Merino blood into Australia and Japan, as well as into the States and Territories of the West, and is a man of experience, judgment and sagacity.

The other is from a gentleman for many years one of the most successful woolen manufacturers in this country, and now also a shepherd in the far West, whose flocks of Merinos number fifty thousand head.

Both of these gentlemen refer to the subject matter of our present writing. We will give the language of the latter, and it is in substance identical with that of the other gentleman of whom we speak. He says:

"My long experience as a manufacturer, and now my extended interests as a wool-grower, have taught me that the best results, pecuniary and otherwise, to both classes of which I am a representative, must come to us by an entire change in our methods of putting our wool upon the market. We must follow the perfect system of Europe, England especially, where the manufacturer is able to secure from his broker the exact grades of wool he wants, no other, no more. There is then to him no waste, no loss, no disappointment. Of the value of such an experience, I can speak as a manufacturer. And now, for the past five years, I can speak as well from a wool-grower's standpoint. If my wool, and that of my neighbors, left us after careful sorting and scouring, we would save, first, a very large sum in transportation on the wool that leaves this shipping point—at least fifty thousand dollars per annum, as the impurities, from 40 to 75 per cent., would be left behind in the scouring. We should have no trouble with middle men, as we should know in just what condition our wool was, as it left our hands; and in that shape it would go into the hands of the mill men direct. Of course such a scheme would require, at the source of supply of the raw material, a well-appointed, systematic working establishment of competent experts, as sorters, scourers and packers. It would require, also, such a sense of honor on the part of the managers as exists among the standard wool-scourers of England, whose brands of class, sorts or grade are no more a matter of ques-

tion among manufacturers there than is a Bank of England note. This plan is perfectly feasible, and must be adopted, if satisfactory relations are ever to be established between American wool-growers and wool-manufacturers."

We have submitted these views, thus expressed by these two wool-growers, to a manufacturer whose record in a woolen mill in Connecticut is one of the brightest features in successful woolen-manufacturing in this country, and who, were we to give his name, would be accorded the first place as an authority in such matters. He said in comment:

"My observation in Europe, and experience here, lead me to endorse most heartily the views of these men engaged in wool-growing. And having been for more than forty years connected with the best class of woolen manufacture, I feel that I can say that the highest results in woolen manufacture can never be secured in this country until the manufacturers can go into the market and unhesitatingly buy the marked grade of the wool he wants, without a question as to its character and uniformity. More than by any other one thing would such a condition of the market put money in the pocket of the manufacturer, and aid him to achieve the best and most desired results in the class of goods he would be able to put upon the market."

We have been to some trouble to see others than the above, and two of the oldest and most successful mill men in Massachusetts said to us (and each of them has seen three-score and ten years, and to-day are using 20,000 pounds of wool per day): "If we could buy our wool sorted and scoured, upon honor, so that our supplies should come to us from sources we need not question, we would buy no more wool in the grease. Our present methods are most unreliable, unsatisfactory and unprofitable."

It seems to us that the evidence we have cited is very potential for extensive and radical changes in the interests of both grower and consumer. We certainly could not find more competent evidence than we have given. The five gentlemen whom we have quoted are all personally known to us, and we know no better authority. Such unanimity of opinion has great weight, and deserves such consideration as shall result in prompt and effectual action and remedy.—C. W. Jenks, Boston.

A Cheap Poultry Fence.

The following method of constructing a cheap fence, we take from the *Farm and Garden*: "A cheap fence should combine height and strength. If the large breeds are used, a lath fence four or five feet high answers well, but as the small breeds are good flyers, that active quality should not be overlooked, and so we change the fence a little to suit the breed, by using a few more laths. To give such a fence strength, and also have it at least five feet high, without the use of boards, which are expensive, place posts in the ground eight feet apart; fasten a strip to the posts eight inches above the ground, and another strip one foot above the first. Cut the lath in halves and nail the half pieces (which will be two feet in length) to the strips, first driving the lower ends into the ground two or three inches. Next, fasten on a strip to the posts three feet above the second one, and nail on whole lath, and the fence will be stronger at the bottom than at the top, thus preventing dogs from breaking in, and the lower laths being driven into the ground a little prevents the fowls from getting under. The fence will, of course, be a little less than a lath and a half high."

Put a teaspoonful of ammonia in a basin of warm water, and use it to clean hair brushes. It will make them beautifully white, but care must be taken not to let the backs of the brushes get wet.

Increased Wants of Farmers.

The present comparatively low price of farm produce is leading many farmers to inquire why it is that they are unable to make money, or at least to save it, at prices which fifty to sixty years ago would have been regarded as ample, if not liberal.

But aside from expense for machinery there are many reasons why farmers in all sections of the country should not be expected to follow the old-fashioned, moderate habits of living that formerly prevailed.

It is to these increased wants of modern farmers that the prevailing discontent with the results of farming is mainly due. Crops are quite as high in price as in the earlier days, and with the best farmers, who use fertilizers, thorough tillage and skill in their business, the crop is quite as certain as it was then.

Much has been said, and with some justice, about the impolicy of subjecting the intelligent labor of this country to ruinous competition with the pauper labor of the old world.

We believe that in most cases more thorough attention to the details of farming will enable farmers to live even more expensively than they have in the past.

grown on our farms. In bad seasons this proportion is not more, and in many cases is even less, than a quarter. On this showing a large majority of agricultural papers are ever advising farmers to practice greater economy, ignoring the fact that as a class they now spend a smaller proportion of their earnings than any other.

To do this is not so difficult as may be imagined. Thousands of farmers have proved its practicability. It implies generally the substitution of intensive for extensive culture, selling of part of the farm and at the same time not diminishing the amount of labor and capital employed in working the remainder.

The experiment of trying to compete with foreign grain production by pushing ahead on the bonanza farm scale at the west has been tried and has failed. Wheat at fifty cents a bushel in Dakota cramps the farmer worse than low prices do the farmers at the east.

This, That and the Other.

A hand—a drunken laborer.

What part of speech is kiss?—conjunction.

The immortal saying, "There's always room at the top," was invented by a hot clerk.

The hairdresser's widow is a relic of barbarism.

Rub cups discolored by baking custard in them with damp flannel dipped in whiting.

Alcohol and ammonia is best to clean silver, rubbing up at the last with a little whiting.

It is somewhat paradoxical that the man who does the least talking in Congress is called the Speaker.

"Here, waiter, this salmon isn't nearly as fresh as that you had on Sunday." "Must be, sir—same salmon, sir!"

Look at a stone over which you have tumbled only long enough to recognize it quickly when you come that way again.

"I see that a woman in Ohio sneezed herself to death last week." "Well, that's sneezy way to die," was the reply.

Egg shells crushed into bits and shaken in decanters and bottles three-fourths full of cold water, will clean them and make the glass look like new.

Red pepper pods, or a few pieces of charcoal thrown into the dish in which onions, cabbage, etc., are being boiled, will prevent the unpleasant odors which are so annoying.

Marks on tables caused by setting hot dishes on them, can be removed by rubbing with lamp oil, finishing with a little spirits of wine or cologne rubbed dry with another cloth.

The English mortality returns for 1891 show that, during that year, ninety-one persons were registered as 100 years old and upwards when they died.

Nearly \$30,000,000 worth of peanuts are consumed every year. Of this amount \$28,000,000 worth is sold by street-corner vendors.

Kansas Fairs.

A revised list of State, district and county agricultural societies in Kansas that will hold fairs in 1884, with names of Secretaries and places and dates of holding fairs:

- Shawnee county—Kansas State Fair Association, Topeka, G. Y. Johnson, Secretary, Sept. 8, 9, 10, 11, 12 and 13.
Bourbon—Bourbon County Fair Association, For Scott Ira D. Bronson, Sec'y, Oct. 7, 8, 9 and 10.
Brown—Brown County Exposition Association, Hiawatha, C. H. Laurence, Sec'y, Sept. 16, 17, 18 and 19.
Butler—Butler County Exposition Association, El Dorado, W. H. Hinson, Sec'y, Sept. 16, 17, 18 and 19.
Chase—Chase County Agricultural Society, Cottonwood Falls, W. P. Martin, Sec'y, Sept. 23, 24, 25 and 26.
Cherokee—Cherokee County Agricultural and Stock Association, Columbus, John Henderson, Sec'y, Sept. 2, 3, 4 and 5.
Clay—Clay County Agricultural Society, Clay Center, D. A. Valentine, Sec'y, Sept. 23, 24, 25 and 26.
Cloud—Republic Valley Fair Association, Concordia, Thos. Wrong, Sec'y, Sept. 16, 17, 18 and 19.
Coffey—Coffey County Fair Association, Burlington, J. E. Woodford, Sec'y, Sept. 16, 17, 18 and 19.
Cowley—Cowley County Fair and Driving Park Association, Winfield, Ed. P. Greer, Sec'y, Sept. 23, 24, 25, 26 and 27.
Crawford—Crawford County Agricultural Society, Girard, A. P. Riddle, Sec'y, Sept. 23, 24, 25 and 26.
Davis—Kansas Central Agricultural Society, Junction City, P. W. Powers, Sec'y, Oct. 1, 2 and 3.
Dickinson—Dickinson County Agricultural and Industrial Association, Abilene, H. H. Floyd, Sec'y, Sept. 23, 24, 25 and 26.
Doniphan—Doniphan County Agricultural, Horticultural and Mechanical Association, Troy, Thos. W. Heatley, Sec'y, Sept. 23, 24, 25 and 26.
Elk—Elk County Agricultural Society, Howard Thos. Bruce, Sec'y, Sept. 18, 19 and 20.
Ellis—Western Kansas Agricultural Fair Association, Hays City, D. C. Nellis, Sec'y, Sept. 21, 22 and 23.
Franklin—Franklin County Agricultural Society, Ottawa, A. H. Sellers, Sec'y, Sept. 23, 24, 25, 26 and 27.
Greenwood—Greenwood County Agricultural Association, Eureka, A. W. Hart, Sec'y.
Harvey—Harvey County Agricultural Society, Newton, Allen B. Lemmon, Sec'y.
Jefferson—Jefferson County Agricultural and Mechanical Association, Oskaloosa, A. J. Buck, Sec'y, Oct. 1, 2 and 3.
Jewell—Jewell County Agricultural and Industrial Society, Mankato, Geo. S. Bishop, Sec'y, Oct. 1, 2 and 3.
Jewell—Jewell District Fair Association, Jewell, Jno. S. Foster, Sec'y, Sept. 17, 18 and 19.
Johnson—Johnson County Co-operative Fair Association, Egerton, C. M. T. Hulet, Sec'y.
Lincoln—Solomon Valley Farmers' Club, Ingalls, N. B. Alley, Sec'y, Sept. 11 and 12.
Linn—LaCygne District Fair Association, La Cygne, O. D. Harmon, Sec'y, Sept. 30 and Oct. 1, 2 and 3.
Marion—Marion County Agricultural Society, Peabody, L. A. Buck, Sec'y, Sept. 2, 3 and 4.
Marion—Marion Fair Association, Marion, Geo. C. Wood, Jr., Sec'y, Sept. 23, 24, 25 and 26.
Marshall—Marshall County Fair Association, Marysville, L. W. L. Drey, Sec'y, Sept. 23, 24, 25 and 26.
McPherson—McPherson County Fair Association, McPherson, Jas. B. Darrah, Sec'y, Sept. 30 and Oct. 1, 2 and 3.
Morris—Morris County Exposition Company, Council Grove, F. A. Moriarty, Sec'y, Sept. 30 and Oct. 1, 2 and 3.
Morris—Morris County Agricultural Society, Parkerville, C. N. Hull, Sec'y.
Osage—Osage County Fair Association, Burlingame, C. H. Taylor, Sec'y, Sept. 16, 17, 18 and 19.
Ottawa—Ottawa County Agricultural Society and Mechanics' Institute, Minneapolis, A. C. Jackson, Sec'y, Sept. 30 and Oct. 1, 2 and 3.
Phillips—Phillips County Agricultural and Mechanical Association, Phillipsburg, J. W. Lowe, Sec'y, Oct. 8, 9 and 10.
Rice—Rice County Agricultural, Horticultural and Mechanical Fair Association, Lyons, C. W. Rawlings, Sec'y, Sept. 24, 25 and 26.
Riley—The Blue and Kansas Valley Agricultural Society, Manhattan, S. A. Sawyer, Sec'y, Sept. 23, 24, 25 and 26.
Rooks—Lanark Agricultural Society, Stockton, Albert Lambert, Sec'y, Oct. 9, 10 and 11.
Saline—Saline County Agricultural, Horticultural and Mechanical Association, Salina, Chas. S. Martin, Sec'y, Sept. 23, 24, 25 and 26.
Sedgewick—Arkansas Valley Agricultural Society, Wichita, D. A. Mitchell, Sec'y, Sept. 30 and Oct. 1, 2 and 3.
Sheridan—Sheridan County Agricultural and Mechanical Association, Kenneth, Geo. W. Crane, Sec'y.
Sumner—Sumner County Agricultural and Mechanical Association, Wellington, I. N. King, Sec'y, Sept. 17, 18, 19 and 20.
Washington—Washington County Live Stock, Agricultural and Mechanical Association, Greenleaf, F. L. Tolson, Sec'y, Sept. 10, 11 and 12.
Woodson—Neosho Valley District Fair Association, Neosho Falls, R. P. Hamon, Sec'y, Sept. 22, 23, 24, 25, 26 and 27.
Wyandotte—Wyandotte County Industrial Society, Wyandotte, M. B. Newman, Sec'y.

Kansas Patents.

The following devices were patented in August, 1884, by citizens of this State, and were reported for the KANSAS FARMER by J. C. Higdon, solicitor of patents and attorney for patentees. Under writers exchange building Kansas City, Mo:

August 12.—Steam boiler, B. F. Wright, Oneida; machine for cutting corn, J. O. West, Fulton; neck-yoke, S. D. Mahew,

Peabody; buckle, A. H. Mantey, Mound City; boring-brace, J. W. Johnson, Ottawa; steam generator, C. O. Blankenbaker and E. W. Edmonds, Ottawa.

August 19.—Fire escape, Eli Frazier, North Lawrence; paper bag holder, Fieldon Cunningham, Burlington; soil-pulverizer, Benjamin Deem, Spring Hill; plowshare tongs, G. M. Sebastian, Arkansas City; prescription file, R. H. T. Nesbitt, Leavenworth.

August 26.—Automatic water trough for stock, Frank J. Brown, Halstead; compensating whiffletree, Omar Olney, McPherson.

World's Exposition.

As the time approaches for opening the doors of the World's Exposition at New Orleans, encouraging reports from various foreign and domestic commissions indicate that the riches of the great fair have been by no means over estimated.

There can be no such thing as fallure now. With abundance of money in hand, and the largest number of exhibits ever booked at an exposition, and thirty-five States and fifteen foreign countries participating, the management may well feel proud of the success already achieved.

The Mexican garden of five acres will contain one hundred and four varieties of trees from every part of the republic. Many of the woods have a high commercial value and yet, strange to say, some of them are practically unknown in the United States.

Should the Exposition succeed in making known to the people of the world the riches of the North, Central and South American forests, it will have accomplished at its close a highly important mission. But what is said of trees may be repeated in different and more precise language of tropical fruits that are to be brought to the great Exposition.

The actual results already obtained are quite sufficient for the management to base a prediction upon, to the effect that the coming World's Industrial and Cotton Centennial is to be the largest, most complete and satisfactory of the nineteenth century.

THE UNION HORSE-POWER. Has the Largest Tract Wheel, DOUBLE GEARED, No Ruts, Chilled Bearings and LEVEL TREAD. Union Thresher Separator and Cleaner, Premium Farm Crut Mill, Feed Cutters, etc. For Write for Descriptive Catalogue FREE. W. L. BOYER & Co., Philadelphia, Pa.

CHAMPION BALING PRESSES. A bale in 3 minutes. Ten an hour. Load doors and 1 team. 10 to 15 tons in car. Continuous. Send for Circulars. Address Famous Manufacturing Co., Quincy, Ill.

The Home Circle.

Summer Night Blessings.

Slowly sinks the great red sun
From our sight, his day's work done.
Lingering, a crimson band,
Like a halo o'er the land,
Bids the shades of night descend,
Bids the light in twilight bleed.

Fragrant, with the new mown hay,
With the lilies, as they lay
Breathing their short lives away;
Gentle zephyrs everywhere
Softly tell their evening prayer.

Now the stars unfold their eyes
And illuminate the skies.
Glad some fire-flies lend their aid
To dispel the gathering shade.

Through the moonbeams silvery light
Smiling on us all the night
God, from Heaven looks down to bless
What we mortals here possess.

—E. B. H., in *Western Rural*.

Beautifying and Making Home Pleasant.

NUMBER IV.

It is a wise and old proverb that says, "The way to a man's heart is through his stomach." I would like to see the person that likes sour or half baked bread, sloppy coffee, or water-soaked vegetables. Indeed, I think Barnum ought to have him. I suppose there are other ways of entering his heart, but this is an easy way as well as sensible. So I would advise the girls that are opposed to being "old maids" to learn to be good cooks. And right here, while I think of it, I want to say a word in behalf of these deplored, shunned creatures.

Isn't an old maid better, nobler, more lovable than her married sister who quarrels with her "better half" seven days out of the week? And yet this same sister will pity her. This is desperate and I don't blame the old maid for getting cross sometimes. But if I were one I wouldn't make myself ridiculous by denying my age, wearing false hair, painting my face like an Indian on the war path, or seeking the company of those so much younger than myself that I should be entirely out of my sphere. But if I were a plain sensible woman, then I would risk all the sewing society gossip in the country.

And girls, as long as you are respectable, don't stand back for any one; you are just as good as a queen; and if the banker's daughter don't like your dress, she can look the other way. It isn't a pretty face nor an elegant dress that will introduce you into the society of the high and noble; it is your own true self. So don't be afraid to be an "old maid."

DAISY DEAN.

Home Habits.

Be patient. Think before you speak that cross word; you will be sorry for it some day. Don't find fault with everything and everybody. Some things are bound to go wrong, and you may as well make the best of it. Stop being cross before it gets to be a habit. Don't scold the children so that the neighbors will hear you a mile off, and wonder if some one is hurt, because you talk so loud.

Some people are cross whenever it is a rainy day, and why is it? I don't believe they know themselves. They get up in the morning an hour later than usual, then breakfast is late and all the work behind, and all because it rains; and Mrs. Smith says: "I don't believe I will change my dress; there won't be any one here if it rains." Just as if the children and her husband wasn't somebody. So she sits down and goes to sewing, and about supper time see's her husband coming up the walk with a stranger; and there she is, with a dirty dress on, her hair not combed, and the room littered up with the children's playthings, bits of cloth and a little of everything else; the children are out in the kitchen with dirty hands and faces. They know better than to bother mother on a rainy day. Mr. Smith comes in smiling and tells his wife that he has brought an old friend home to supper. And she feels as if she would like to run and hide, but I think she deserved it.

Let a rainy day be the same as a pleasant one. If it is gloomy outside, all the more reason you should try to make it cheerful inside. Hunt up something for the children to amuse themselves with; put on a pretty dress;

fix the babies up clean and have a good supper waiting, and then if your husband brings any one to tea, you will not feel ashamed to be seen, and he will have no cause to be ashamed of you. Remember

"How many go forth in the morning
Who never come home at night;
And hearts have broken
For harsh words spoken,
That sorrow can ne'er set right."

BRAMBLEBUSH.

Women's Work.

I have been washing and am tired; so I will have a few minutes to write. I have been spending all my spare time for the last two weeks budding fruit trees. I did my first work at it last year. I budded peaches from trees taller than my head that I budded one year ago yesterday, and they are doing nicely. I budded all poor apples, seedlings, etc., with good kinds. One large tree that we bought for Duchess turned out to be a poor Romanite. I now have near thirty kinds budded on it. I expect to have a tree of many colors. A great many poor trees I put in a few buds of good kinds. I am also trying cherry, pear, etc.

I think working with fruit and flowers more profitable and pleasant than making extra ruffles to iron these hot days. My plain ironing I put off all I can. Sheets, red table-cloths, and often towels, are folded and not touched with an iron.

I wish I could persuade the farmers' wives and daughters to all try budding fruit trees; yes, and roses too. Mine are doing well. Now, don't think such work belongs exclusively to men and high-priced professionals; for it is nice and easy work for girls and women. My little 7-year-old has been trying budding, and all that I do. I have layered grapes and roses by the dozen, and that will be better than sending off, for we do not always get what we send for. Nurserymen are sometimes careless.

I have been making cheese. It seems so nice to have all we want. I think the making is easier than curing and taking care of it afterwards. I will tell how they can be kept on a small scale. I get good even cheese-cloth and make sacks; put folded paper and cloth in one side under cheese so it will not moisten the sack; have sack large enough to put some dry twigs (I use peach limbs) over and around so the sack cannot touch the cheese. Tie up carefully and your cheese is safe from flies and gnats. I also use a box with shelves, cheese-cloth front and back. The cheese must be turned and washed to keep from moulding. A swinging shelf, table or something that mice can not get at is nice to lay the sacks on. In an outdoor store-room I hang shelves with wire, also use a table; mice can not crawl up on it.

S. S. S.

To a Busy Mother.

The human brain needs rest and change. The human mind needs relaxation. The human heart needs pleasant companionship. Deprive them of these requisites, and the result in nine cases out of ten will be insanity! Perhaps you imagine that I mean to frighten you. Why, to tell the truth, if I could not arouse you to a sense of your condition unless I terrified you a little, I would rather do so than see you an inmate of the insane asylum. You see this to be quite in accordance with the rest of nature's laws. The body cannot subsist on one kind of diet, it must have more or less variety; and behold how plentiful our Creator has provided for this great need in the abundant fruitfulness of earth, air and sea. How soon the palate tires of one article of diet. How soon the body starves when fed upon one thing. Dear friend, I beseech you give this subject your most careful consideration, for I perceive you are killing yourself with the constant strain brought to bear upon mind and body, and unless you consent to relax that strain you will suffer very seriously in consequence. Your "nervous headaches" are sent perhaps as warnings which, if heeded, may prove your salvation from more serious trouble.

I have found it exceedingly injurious to work during the evening. You have been busy all day with one duty or another, the night has come; you can find no warrant in Scripture for continuing your labors, but you can for resting from them. So let the work-basket remain undisturbed, let the needle rest. You will be all the more skillful with it on the morrow. Spend the evening in reading, conversing, playing interesting

games with your children, or in visiting your friends; or better still, if you feel able, in attending an interesting lecture or concert. Then, when you retire you will sleep sweetly, and awake refreshed and equal to the performance of the day's duties.

Never eat heartily when "tired to death." Drink a cup of tea and eat a cracker or two, or beat up an egg in half a pint of milk, and sweeten and flavor to taste, and drink it. This will strengthen you, and will not make any demands upon your weary stomach or digestive organs. And another thing: do not rise in the early morning and trot all over the house doing this and seeing to that for hours before you eat anything. Put on the coffee, if you use that beverage, or the tea if you use that, as soon as possible, and pour yourself out a cup just as soon as it is in condition for drinking, and add whatever light, easily digested article of food you like best. This done, and you must eat slowly and at your ease, you will find that you can return to your work and fairly "make things fly." You will catch yourself singing, perhaps, and when your husband and children come down fresh from their pleasant slumber, they will meet a smiling face and sit down to a breakfast presided over by a cheerful hostess. Force yourself to try this plan once or twice, and I know you will be pleased with it. I have the greatest faith in it, because I proved it in my own case, and this is true of all the suggestions I have given in this letter.—*Illustrated Christian Weekly*.

Guarding Against Bad Habits.

It is sometimes matter of surprise to well-meaning parents that their boys acquire bad habits, such as drinking alcoholic liquors or using tobacco, when they themselves have not set the example, and have warned the boys against it. Many times, too, where the father follows both these habits, he does not desire his boys to imitate him, and yet may take no practical means at the right time to secure his wishes.

No doubt many in the State of New York are hoping much from the new law which, from and after January 1, 1885, requires the effects of liquor drinking and of the tobacco habit to be taught in the public schools. It is a wise law, and ought to do good, but parents can supplement it at home, if they will, by a little forethought, so as to instill abhorrence of these habits in the minds of children. The idea is brought to my mind by what my father did to me when I was a small child.

He was a tobacco chewer in a moderate way, but never praised the habit, and though he never said much about it, I do not believe he would have been pleased to see his boys use tobacco. There were three of us, and though we had his daily example as a chewer, and that of my paternal grandmother as a smoker, not one of us ever used tobacco in any shape. Perhaps we would not have done so in any case; but my father took a course with me which, whether designed or not, gave me an antipathy to chewing strong enough to last through a dozen lives, I should think. What he did was simply to call me to him in the evening, take me on his lap affectionately, and then, getting out his pewter tobacco-box containing "fine-cut," put a trifle of it on my tongue or under lip, and then ask if it wasn't good! That is, he did so once or twice; after that, I guessed what was coming, and didn't open my mouth. Of course, I was young; had I been a little older, or lived in an atmosphere where tobacco was always praised, and had I been ambitious to "be a man" in haste, I might have been willing to overcome nature's repugnance, and learn the habit! But I didn't.

I think this precaution could be wisely imitated, instilling a feeling which will be permanent. The taste of tobacco is so vile of itself to a little child, that it will be remembered with abhorrence all through life. Then as to liquors—some of them, particularly the stronger sorts and ale, are quite enough to burn or disgust any child tasting them, provided there is no disposition among the spectators to make the child think it is really good. Something depends on how it is done. It is much better to give the child the impression that you expect it to disgust than to lead it to suppose that it can possibly be agreeable, or ought to be agreeable. If I thought the raw article itself would not sufficiently disgust, instead of weakening and sweetening (as some misguided parents do

to make it palatable) I would add something to it to create disgust, believing that a little deception in that case would be justifiable. A little liquor, or wine even, so "doctored" as to be intensely bitter and hateful, would go a long distance to check any further disposition to taste it when the opportunity offered.

But this should not be all. The parent who lets a child grow up without attempting to instruct it privately, when its mind is plastic and ready to receive parental influence, has himself (or herself) most to blame if that child becomes a drunkard or tobacco user. Take the child in your arms, when still of tender age, and tell it, kindly and lovingly, what a curse liquor is and has been to the human race, how it burns out manhood and life, how it ruins homes and blights all its votaries, how it ends in crime, poverty and death, how it fastens on its victims with superhuman tenacity, until even those who would cannot shake off the habit—and, ten to one, the child is saved. Of course, you must be consistent, and never undermine your teachings by example. If you do, and some day you are rewarded by a drunken child, who is to blame?

Unhappily, to bring up children properly, so that they regard morals as worth more than worldly prosperity, requires mental labor, some sacrifice of ease and idleness, and intense parental and human love. The masses know little of it. To attempt moral instruction privately, or to enforce Christian discipline, is a dread and a bore to themselves. The precious hours of childhood, wherein only this training can be successfully conducted, are wasted. Before many a parent is aware of it, vile habits and tastes are formed, which may make the child a curse. Then reproaches, discipline and anathemas are useless.

The power that parents have to reform the world is quite sufficient, if they will only use it wisely. A very few generations would show a vast change in the moral tone of society, if all who claim to be moral would unite in such an effort. It will be worth more than Sunday schools, or temperance lectures, or books, or even this new law relating to instruction in the schools concerning the effects of alcohol and tobacco. These are all good; but nothing can safely supplant home influence. The good done outside the family is mainly to the children of immoral or dissipated people, and sometimes causes them to expect the schools to do work which can only be done well at home.

If you're told to do a thing,
And mean to do it really;
Never let it be by halves;
Do it fully, freely!

Do not make a poor excuse,
Waiting, weak, unsteady;
All obedience worth the name,
Must be prompt and ready.

God blesses still the generous thought
And still the fitting word he speeds,
And truth, at his requiring taught,
He quickens into deeds. —Whittier.

Hay Fever.

For Hay Fever I recommend Ely's Cream Balm. It entirely relieved me from the first application; have been a sufferer for ten years. Going from home and neglecting to take the remedy, I had an attack; after returning I immediately resorted to it, and found instant relief. I believe had I begun its use earlier, I should not have been troubled.—J. COLLYER, Clerk, 118 Broad street, Elizabeth, N. J. Easily applied.

One and one-half bottles of Ely's Cream Balm entirely cured me of Hay Fever of ten years standing. Have had no trace of it for two years.—ALBERT A. PERRY, Smithboro, N. Y.

I recommend to those suffering (as I have with Hay Fever), Ely's Cream Balm. I have tried nearly all the remedies, and give this a decided preference over them all. It has given me immediate relief.—C. T. STEPHENS, Hardware Merchant, Ithaca, N. Y. Fifty cents.

Parsley for winter use should be sown at once, in boxes of rich soil, and set in a cool, shady place till it germinates.

S. Harvey Horner, druggist, of Caldwell, Kansas says that Leif's Dandelion Tonic sells better than any proprietary medicine found on his shelves, and that all who use it speak of it in the highest terms. In the same letter he orders another gross, to be shipped at once and adds: "I have sold seven bottles to day."

Much strength can be saved and better work done by keeping hoes sharpened.

The Young Folks.

The Squirrel's Lesson.

Two little squirrels, out in the sun,
One gathered nuts, and the other had none.
"Time enough yet," his constant refrain;
"Summer is still only just on the wane."

Listen, my child, while I tell you his fate:
He roused him at last, but he roused him too late.

Down fell the snow from a pitiless cloud
And gave little squirrel a spotless white shroud.

Two little boys in a school-room were placed,
One always perfect, the other disgraced;
"Time enough for my learning he said,
I will climb, by and by, from the foot to the head."

Listen, my darling, their locks are turned gray;

One as a Governor sitteth to-day;
The other, a pauper, looks out at the door
Of the almshouse, and idles his days as of yore.

Two kinds of people we meet every day,
One is at work, the other at play,
Living uncared for, dying unknown—
The busiest hive hath ever a drone.

Tell me, my child, if the squirrels have taught

The lesson I longed to implant in your thought?

Answer me this, and my story is done—
Which of the two would you be, little one?
—*Growing World.*

Falling Stars--Meteorites.

Meteorites are composed chiefly of iron and stone, and fall from the skies. When they appear in the daytime, they come like a thick cloud passing swiftly overhead, and usually explode with a loud report. They are seen very frequently at night all over the country, and shine like a falling-star. One of the largest ever seen in the United States appeared about twenty-four years ago, in the still summer evening, coming from the west. It was almost as bright as the moon. It passed swiftly over the heads of thousands of observers. People in their country houses in Westchester County, men, women, and children, ran out of doors to see the unusual visitor in the sky. Many were very much frightened. But the meteor passed on, harming no one, and seemed at last to burst and disappear over Long Island Sound.

Many interesting stories are told of the strange appearance and violent explosions of these meteors in the sky. Yet no one seems ever to have been harmed by them. At night, April 5, 1800, a bright object of great size—"as large," it was said, "as a house"—moved over our country, and seemed to rush forward with terrible swiftness. It gave a light as brilliant as that of the sun. It disappeared in the northwest. A violent crash was heard that seemed to shake the earth, and the meteor buried itself in the ground. Where it fell, trees were broken down and burned, the earth torn up, the vegetation scorched as if with fire.

But the most brilliant display of meteors ever witnessed was on November 12-13, 1833, at night. Suddenly the whole heavens shone as if in flames, and countless balls of fire flashed for hours along the sky. It was a rain of fire. In all parts of the country, from Maine to Georgia, the people were awakened, and watched with wonder the falling-stars. Many fancied the earth was burning, and that they themselves would soon perish in the fiery furnace. The colored people in the Southern States, who were very ignorant, came out from their cabins, and often fell into wild convulsions of terror. They prayed, they shouted; they cried out, "The Day of Judgment has come!" The beautiful sight continued until morning. It has never appeared again. But meteors are always seen about the 12th of November and every thirty-three years they come in great numbers. It would appear as if the earth at those periods passed through a cloud of them. None of them in 1833 fell upon the ground or did any harm. The meteorites that come in November are called Leonids, because they seem to fall from the constellation Leo.

The stones that fall from the sky when the meteor explodes are black, brittle, and covered with a shining or dark glaze. Some of them are more than a hundred pounds in weight. They fall in all parts of the earth. The Chinese have recorded great numbers of

them in their histories. Among the Greeks and Romans these black stones that fall from the skies were worshipped as if they were gods. One of them was called the *Mother of the Gods*. It was brought to Rome from the East, where it was said to have fallen from the skies in a cloud of fire. The ancient philosophers thought these black stones fell from the sun.

It is remarkable that these falling stones have never done any harm. They have usually fallen in the country or in the sea, or even far away upon some desert island. One may almost always see one or more meteors shooting over the sky on clear nights, and leaving behind a trail of light.

By-Products--What we Get From Smoke.

The progress made by modern science in utilizing by-products is nowhere better illustrated than in the Elk Rapids, Mich., furnace for the manufacture of charcoal. In this furnace are manufactured fifty tons of charcoal per day. There are twenty-five charcoal pits constructed of brick. Each pit is filled with one hundred cords of hard wood, and then fired. The vast amount of smoke from these pits, which was formerly lost in the air, is now utilized. Works have been erected to convert it into chemicals and acids. These works are a curiosity. First they have a circular tube made of wood, with pine staves, sixteen feet in length, bound together with heavy iron hoops. This tube is placed directly over the pits in a horizontal position, with an opening from each pit into the tube. At the end nearest the building there is a large drum, containing a rotary fan, propelled by machinery, the power of which is gas. That acts as a suction or draught for the smoke, which is conveyed into five stills filled with copper pipe two and one-half inches in diameter.

The boxes in which the pipes are situated are twenty feet square and eight feet deep, made of heavy pine, and filled with cold water. These are all connected by copper pipes. They are also connected with the main still, one hundred feet in length, ten feet wide, and eight feet deep, filled with copper pipes two and one-half inches in diameter, in a horizontal position, surrounded with cold water. From this it is conveyed to a purifier, from which runs what is called pyrogenous acid, which is as clear as amber, with an unpleasant odor. From the acid is produced, first, acetate of lime; second, alcohol; third, tar; fourth gas, which is consumed under the boilers.

Each cord of wood contains 28,000 cubic feet of smoke. 2,800,000 cubic feet of smoke is handled every twenty-four hours, producing 12,000 pounds of acetate of lime, 200 gallons of alcohol, and twenty-five pounds of tar. The articles have a commercial value in the manufacturing of various articles, adding very largely to the profits of manufacturing charcoal. Here are over 13,000 pounds of solids taken from the smoke which would otherwise have been dissipated in the atmosphere every day. The smoke from 40,000 cords of wood consumed per annum is thus made a source of much profit, as the works are nearly automatic, and require no workmen to run them. This system utilizing the hitherto waste products of burning charcoal is the invention of a Mr. Matthieu, of Detroit, who superintended the construction of the Elk Rapids plant. No more charcoal ought to be manufactured on the wasteful plan of burning in "coal pits," not only on account of the waste, but because the atmosphere for miles around is loaded with these uncollected products, which cannot be otherwise than unhealthful to persons breathing it. On the same principle thousands of tons of white lead have been collected from the smoke and fumes of lead smelting furnaces in Missouri.

Waste not moments, nor words,
In telling what you could do
Some other time; the present is
For doing what you should do.

Don't do right unwillingly,
And stop to plan and measure;
'Tis working with the heart and soul
That makes our duty pleasure.

If a task is once begun,
Never leave it till it's done;
Be the labor great or small,
Do it well, or not at all.

Reading that is bad for the eyes—Volumes of smoke.

A Strange Race of Wild Dogs.

About eight miles from Poughkeepsie is the most remarkable breed of wild dogs, or rather half dog and half wild beast. According to the stories of the farmers in that vicinity, a female Newfoundland dog, a few years ago, gave birth to a litter in the woods. The dogs grew up wild, and it seems took to running with foxes and animals of like kind, which resulted in another breed of animals, part dog and part fox, which are the terror of that part of the country.

There are about fifty in all, as near as they can judge, and they run from the size of a Newfoundland dog down to a small fox dog. They run in companies, and it is extremely dangerous for a man to come across them, for they are ferocious. Besides, they have the cunning of the fox added to the higher intelligence of the domestic dog, which is such an assistance to them that it seems almost impossible to kill one of them unless a man goes alone, and then, although he may shoot one, the rest of the pack will make short work of him. Hunters would much rather run across a pack of wolves than these dogs, for in the wooded district they come upon them unawares, kill their hunting dogs, and if the hunters do not beat an immediate retreat, will attack them. In several cases hunters have been in this plight, and forced to climb trees in order to save their lives.

Many stories are told of the remarkable cunning of these animals. Instead of cunning, perhaps, a better word would be "intelligence." When a party of hunters undertake to hunt these wild dogs they are never able to find them, for seemingly they know very well their own strength, and though they may be a match for one or two men, they cannot cope with a dozen.—*Kingston Freeman.*

The Cork Trade.

At present we depend for cork upon the countries bordering the Mediterranean. In these countries the actual market value of cork is ten times what it was at the beginning of the century, and it is likely to go still higher. In Sardinia, Sicily and Naples extensive cork plantations are being destroyed for the purpose of obtaining the tannin of superior quality yielded by the bark and carbonate of soda from the ashes of the wood. This destruction has been going on for years, while planting has not even replaced the trees destroyed, except in France and its African dependency.

As long ago as 1822 the French Government appropriated 4,500 francs, which were to be divided among those who, planting in 1823, should possess at the expiration of ten years plantations of 10,000 vigorous saplings. In 1834 only three persons had been entitled to the reward. But France has now over 500,000 acres of cork plantations in Algeria, yielding a considerable revenue to the State.

About fifty years ago the Spanish Government began to encourage the planting of the cork oak, and the number of trees in that country has increased. This increase would have been greater but for the fact that, while in some provinces cork has become the chief source of wealth, in others, many proprietors destroyed their trees in order to clear their ground for more valuable productions. The cork oak grows to the height of about fifty feet.

In Algeria and in the Spanish province of Estremadura the development of the tree is somewhat greater. The tree reaches a great age. It continues to grow for 150 or 200 years, and after its growth it still yields cork, though of an inferior quality. In some parts of Spain it is customary to destroy the tree when the quality of its cork begins to deteriorate. In Europe the tree is met with as high as 40 deg. north, but it needs a warm climate. In France and Spain it is found 1,600 feet above the level of the sea, while, in Algeria it occurs at double that altitude. The tree can bear a minimum average annual temperature of 55 deg. Fahrenheit. It prefers land sloping to the southward and near the sea. Granite lands and slaty, sandy and silicious soils are very unsuitable, and it does not take kindly to damp soil. It grows spontaneously in virgin soil where silica or silico-argillaceous compounds abound. Lands suitable for the vine are also suitable for the cork.

The London *Economist* is authority for the statement that the Pennsylvania Railroad company controls the largest income of

any joint stock company in the world. The greatest English company—the London and Northwestern—last year earned a gross \$53,500,000 or, including "controlled undertakings," possibly \$60,000,000, while on the continent the most important line—the Paris, Lyons & Mediterranean—earned a gross \$70,000,000. Such figures are a long way short of the Pennsylvania receipts, which exceeded last year \$100,000,000.

The town of Creighton, situated some twenty miles northeast of Pittsburg, is unique in some respects, for the houses are lighted and heated exclusively with natural gas. Three years ago some capitalists conceived the idea that a flow of natural gas could be obtained in the valley of the Allegheny sufficient to run a glass manufactory, so they purchased land where Creighton now stands and proceeded to sink a well. A good coal vein was pierced, but they did not want coal, and kept going down till at a depth of 1,200 feet a body of gas was struck which burst upward with a force of 250 pounds to the square inch. This gave assurance of sufficient fuel, so the Pittsburg Plate Glass Company was organized and works erected. Finding that there was sufficient gas to run the works and provide light and heat in the houses of the workmen and others that quickly grew up round the works, arrangements were made to supply all the houses with the gas, and this plan has been carried out. So there is to be witnessed the spectacle of a growing manufacturing town with no smoke and no cinders around. The gas has come to be a great favorite in the households for cooking, heating, and lighting purposes.—*American Machinist.*

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The KANSAS FARMER till New Year for 25 cents.

A great deal of rain fell in Kansas during the last two weeks in August.

Twenty-five cents will secure the KANSAS FARMER till December 31, next.

The Johnson County Co-operative Association holds its third annual fair at Edgerton, Sept. 9 to 12.

We received a letter from James Bell, giving description of Anderson county Fair, but it came too late for insertion this week.

The Blue and Kansas Valley Agricultural Society has sent out a handsome premium list. The fair is to be held at Manhattan September 23 to 26 inclusive.

If it is intended to sow rye this fall, do it at once if not already done. Late sown rye is of no value for fall pasture, though it will produce a good crop of grain the next year.

A representative of the Agricultural department at Washington City has gone to Europe to study the different methods of making sugar which are in operation there.

The first annual exhibition of the Arkansas Valley Fair Association will commence at Hutchinson, Reno county, Wednesday, October 8, and continue four days. We are in receipt of a very neat premium list.

The Kansas City Inter State Fair opens September 15 and holds during the week. The premium list shows an aggregate of \$30,000. Great preparations are made to have the best of those grand expositions this year.

Kansas is ahead in the production of wheat this year. Our farmers produced more wheat in the aggregate than those of any other State, and the average yield per acre is larger. This is a record of which our people may well be proud.

The Passenger Department of the Kansas City, Fort Scott & Gulf Railroad (Memphis Short Route South), has prepared an elaborate pamphlet relating to the World's Exposition. It gives a full description of what can be seen at the Great Exposition to be opened at New Orleans on December 1st, and shows the advantages to be derived from visiting that city during the great show. It also contains a large Map of the city of New Orleans, showing the Exposition grounds and buildings. The book will be of great value to those visiting New Orleans during the great fair, and will be mailed free by addressing J. E. Lockwood, G. P. A. Memphis Short Route South Kansas City, Mo.

Sugar Making in Kansas.

Doubtless many of our readers have wondered why no sugar making literature has appeared in this paper recently. We, too, have been disappointed in this respect. In 1883, the KANSAS FARMER published a great deal of original matter relating to the making of sugar in Kansas and we indulged in prophetic language relating to the possible extent of the sugar industry in this State.

We have no recent information on the subject except that preparations have been made at Sterling and Hutchinson and at Ottawa for making large quantities of sugar this fall. At least five hundred thousand pounds, 250 tons, of sugar was made in the State last year, and most of it was made at the Sterling and Hutchinson works. There was a little made at Ottawa—enough to satisfy the projectors that the secret had been learned.

Two reasons have operated to discourage enlargements of the business this year. In the first place, while the work already done demonstrated the practicability of making sugar from our sorghum cane, another very important fact, also, was discovered—namely, that the successful manufacture of sugar here as elsewhere, requires investment of large amounts of capital. It is estimated by persons who have made the matter a practical study that at least two hundred thousand dollars is necessary to establish a paying factory. That, of itself, discourages men of small means. And in connection with this, farmers at a considerable distance from the factory, and without the assistance of skilled attendants, cannot profitably make sirup for the refining houses. In addition to the money required, it is necessary to have the help of persons who have had some scientific training in the work. Anybody can make sirup from the cane, but not every one can produce sirup that will yield sugar in after processes.

In the second place, there has been a good deal of talk about reducing tariff duties on foreign sugars. Should that be done, it would have the same effect on the domestic article that the reduction in March 1883 had on domestic wool—lower the price. In the beginning of the industry, all persons would feel more or less timid at starting out in the face of falling prices. It is true that sugars are selling in this country now about as low as they ever did; still, with an increased production and a freer competition by foreign made sugar, the prospect is not encouraging, to say the least. One of the Kansas congressmen, Judge Perkins, introduced a bill to remove the duty wholly from sugar. Whether it is his intention to recommend a bounty on the home-made product, we are not informed; but without that, if the tariff duty is wholly removed, the average reduction would amount to about one cent on the pound, which would be equal to a general fall of 15 to 20 per cent., the same as to drop one dollar wheat to 85 or 80 cents.

However we have not lost any of our faith in the ultimate success of sugar making in Kansas. The work done this year will add to the experience of persons engaged in the business and of those other persons who are looking on as interested spectators, and a great many persons are experimenting in a small way. Then, after the election in November is passed, people will know more about the policy of Congress in relation to tariff duties. Financial affairs can be better gauged then, and investments made with greater assurance of permanence. If Republicans elect the next Congress there will be no material reduction that will affect any national industry which is prospering,

or which bids fair to prosper under protection. If Democrats elect the Congress, we may expect considerable reductions all along the line.

Farmers Versus Cattlemen.

The *Cowboy* published at Dodge City, calls attention to a conflict between farmers and cattlemen in the western part of the State, and urges a combination of interests, and the fencing in of whole townships, for which purpose, that paper suggests the voting of township bonds.

We doubt whether anything practical or permanent would come of such a proceeding. Any citizen of the United States may take for his own use a quarter section of public land, and no citizen is permitted to take up any more. He may take it anywhere on public lands, and is entitled to protection of the law. As fast as men want the public land for farms they will take it in lawful quantities; and whenever they crowd the cattlemen, they, and not the farmers must yield. That is the policy of the government and will it probably never be changed except, possibly, in certain regions where ordinary farming is not practicable.

There has been an effort to change the law so as to permit persons to enter large tracts of land for grazing purposes in portions of the country that are better adapted to grazing than to mixed agriculture; but it does not meet with much favorable consideration. Opposition to the acquirement of large bodies of public lands by one person or company is very strong among all classes of people. Public sentiment is very strongly against it; and there is little doubt that the feeling will grow stronger rather than weaker.

This paper has referred to the subject incidentally several times in discussing the economies in progressive farming, and we think our views will be approved by all carefully thinking people. Even if specialists in stock growing should not be disturbed by settling farmers except to come close up to them, surround them, and spread their settlements beyond the ranches, the inevitable effect would be to drive the stockmen away or destroy their business. Improvement following settlement enhances the value of lands, and the ranch lands would show higher figures on the assessment roll as fast as the farm lands do; and whenever stock lands reach a certain value, it becomes necessary to reduce the area or increase the productive capacity. If a man has ten acres of ground to one head of cattle, so long as the land is cheap, he can stand it; but when his acres begin to call for ten to fifty dollars each in taxation, then there must be a change because the business as conducted cannot be supported on high priced lands. No sane person would think of buying a large body of land at fifty dollars an acre for a stock ranch. He could not afford it. As land increases in value, modes of production change. More must be produced on less ground. So, of stock raising.

Hence it is, that there can never be any permanent conflict between the general farmer and the stockman. Natural forces will work out the problem in time. It is to be expected that during the transition period there will be some friction in certain localities. But this will not long continue, for the stockman will invariably see that his interest lies in cheaper, not more costly pastures.

A Wool Circular recently sent out from Melbourne, Australia, gives a gloomy account of the sheep industry there. It says that the loss in the yield of wool, it is estimated, will be equal to 40,000,000 pounds of wool. Besides the

loss of the sheep, the condition of the clip will also be inferior, as usual in conditions of drouth. According to the statistics of exportation to date, the increase in the shipments of the five colonies have dwindled down to 67,481 bales. This, added to the quantity retained up the Darling River, which continues to be not only unnavigable, but absolutely dry in many places, makes about 8,000 bales, as previously estimated. The exports from the country are excessively bad. The losses have been enormous in one district, but no positive estimate can be formed of them until the next shearing season. The figures will, however, amount to millions of sheep, and the probabilities point to a deficiency of between 80,000 and 100,000 bales.

Complimentary.

Prof. H. C. DeMotte, President of the KANSAS FARMER Company, received generous attention from his old neighbors and friends at Bloomington. The *Leader* of that city, August 19, reports the proceedings thus:

"Prof. H. D. DeMotte and wife will leave to-morrow for Quincy, where the Professor will take charge as President of Chaddock college. Prof. DeMotte has for many years had a professorship in the Wesleyan, and with his excellent wife has been prominently identified with the Sunday school and Y. M. C. A. work. Last evening their many warm personal friends tendered them a farewell reception at Grace M. E. church. The auditorium was crowded to the utmost capacity, and the occasion was a memorable one. Judge Reeves was president of the evening, and a regular programme was followed. Mrs. Dr. Marsh, on behalf of the Woman's Christian Educational association, presented Mrs. DeMotte with a set of highly complimentary framed resolutions passed at the last meeting of the society. Mrs. DeMotte responded with much feeling. Prof. Cross, on behalf of Grace M. E. school, then handed them framed resolutions adopted by the school, to which both responded. Rev. Miller was next on the programme, and for the church, presented the worthy couple with a handsome bronze clock. Mayor Funk and Squire Pancake made timely remarks and the evening passed happily away. It was a testimonial of esteem which, while richly deserved, must always be a source of pleasure in memory to the recipients."

It is stated that the mills of California are said to be capable, at present, of turning out 2,000,000 barrels of flour annually. San Francisco has five mills the aggregate capacity of which is 2,800 barrels per day. The Stockton mill makes 800 to 1,000 barrels daily and another establishment in process of erection will turn out 800 barrels. Vallejo is to have a very large mill able to make some 5,000 barrels per day. There are many others of less importance, and the number increases daily.

Call and See Us.

Next week the State Fair will bring together a great many of the readers of the KANSAS FARMER. We will be much pleased to see as many of them as can make it convenient to call. Our office is 273 Kansas Avenue, between Eighth and Ninth streets, upstairs, first door to the right.

A little fresh lime scattered over cess pools and all filthy places about the dwelling will neutralize many causes of disease. Copperas, also, is a good disinfectant. Where lime is not convenient and copperas may be obtained, use it instead. Where slops are emptied, privy vaults, and all places sending off filthy odors, lime or copperas will improve conditions at once.

Horticulture.

New Kansas Grapes.

Kansas never falls in the rear when the agricultural or horticultural procession moves along, but generally comes up to the front. She has shown some splendid specimens of apples, peaches, and strawberries originated within her borders, but I believe grapes will yet be her glory.

Mr. John Burr, of Leavenworth, has been for many years propagating new varieties of grapes, and he has now in fruiting not less than a dozen varieties of black, red and white grapes, which to me would seem difficult to excel in excellence. All this has been done so quietly and with so little ostentation and advertising, that many people living within a stone's throw, know nothing of it. His entire property is embraced in two ordinary city lots, and were the number of vines, fruit trees, strawberries, roses and other flowers stated in numbers it would seem incredible. His place is a veritable multum in parvo.

He works methodically and can give the history of every plant. His standard of excellence is placed high, as he does not believe it proper to name and disseminate a new variety no better than those already grown. He has placed on the market but one grape, the Early Victor. It has been fruited in Missouri, Iowa, New York, Connecticut, Canada and Texas, and from no point has a failure been reported in any respect. Its season is so early, that it never fails to ripen its fruit.

The Early Victor is a black grape, medium size, borne on large shouldered bunches, very sweet, sprightly when first ripe. On the 10th of August I visited the fruit farm of Mr. Putnam, in the suburbs of the city, and saw an acre in bearing; the vines were loaded and some clusters were fairly eatable. On the same ground were Concord and Moore's early, the former beginning to color and badly rotted, the latter well colored but hard and sour. If Mr. Burr had originated this grape only, it could be said for him, well done; but he has many others of the very highest promise, of which I will name two or three. First, No. 1, which he will name Burr's Early, a large black grape, sweet, rich, high flavor and he thinks some days earlier than Early Victor. Next, No. 2, Gen. Pope, black, berry and bunch large; when first ripe is rich and vinous, but becomes very sweet and hangs well to the vine. Ripens with Concord. I saw several long rows of this grape on Mr. Putnam's place, and in my opinion, made the very finest appearance of any grape on the grounds.

I will mention one other, No. 9, which I will call the Giant Delaware. Those who have tested this grape believe it superior to the original Delaware of which it is a seedling. The vine so far has proved perfectly healthy, hardy and very vigorous.

Mr. Burr passes his days pleasantly amongst his vines, noting all their points, and to the writer, it seems no better occupation could be selected for an old gentleman, in which to pass his declining years, than the propagation of new fruits, which, while charming in itself, gives assurance of being pleasantly remembered by others for years to come.

You will be surprised when I tell you that Mr. Burr was born in the last year of the 18th century. He is a veteran indeed, but when he shows you his pets, the enthusiasm of youth takes hold of him again. He will make a show of his fruits at Bismarck, if the weather is fine, and he feels able to endure the fatigue. I hope to see his grapes there. than

which, a better collection of new grapes of first quality cannot be found.

C. W. KEIFER,
Sec. Leavenworth Co. Hor. Society.

Preservation of Fruits.

The first picking of apples is usually the best, and ought to be laid aside for winter use. The second gathering—for apples are rarely twice hand-picked—should be sorted out, the least injured ones laid aside and then preserved, and those most injured used at once. When cider is made at home the same rules hold good. Work up those apples that look least likely to keep. As we are anxious to relieve the over-taxed housewife, we strongly impress on all persons that they should secure a large proportion of their fruit safe for winter consumption, and that in a state of nature, without giving their wives the trouble of canning such large quantities as are usually put up in American country homes. The care needed for apples is doubly necessary for pears, as they are more juicy and less liable to resist the rough handling or an uneven temperature. When fruits are first gathered, they, as it is technically expressed, sweat—that is, they exude their superabundant moisture. If this moisture be carefully removed twice, and the fruit neatly wrapped in paper, then stored in an atmosphere that is uniform and moderate, it will keep with ease far into the next year. It is also necessary from week to week to enter the fruit room—which should not be allowed to become damp on any account, as damp speedily destroys vegetable matter—and look over the rows of fruit. This can be done by taking up a pear or apple here and there at regular intervals and examining its state, and then replacing it if all is found safe, rejecting it if it is found unsound.

In harvesting small fruit, care must be had to collect them in dry weather; otherwise, they will require more sugar and more time in preserving, and likewise be less certain to keep well. Still fruit—that is, apples, pears, peaches, nectarines, and such like—bear to be preserved when only slightly pinked. Quinces ought to be canned or made into consistent preserves about one month after having been harvested. The saccharine matter in the fruit is set by that time.

The harvesting of nuts is a small matter, yet annually bushels of nuts are lost by storing them in a damp condition in frozen cellars or over heated closets. In the nutting season, immediately after the slight frosts, all nuts should be gathered, the husks removed and the nuts allowed to remain exposed to the open air, but under shelter from rains or severe frosts. About the first of December all nuts should be dry enough to store; they may then safely lie three inches deep on the floor of a well ventilated garret. A cellar is the worst possible place to store fruits in. As every cellar is below the surface, it is more or less damp, if not artificially heated, and artificial heat is expensive, and dampness is strongly antagonistic to safe keeping of any vegetable matter.

The best manner of keeping grapes fresh for winter use is that method pursued in Spain; namely, to pack the entire clusters in thick open-mouthed stoneware jars, laying dry, putting fresh hard wood sawdust between them so thickly as to fill up all interstices; then to place the jars in a cool and even atmosphere, excluding all light. This method is more laborious but better than the practice of the Italians and French, which merely consists of hanging the grapes in a dark room subject to a slight current of heated air. Thus the grapes are partially dried, and though sweetened by the process, lose their

freshness and part of their fine flavor.

In the British Isles, where only hot-house grapes can be brought to maturity, the clusters are retained on the vines for weeks and weeks after they have become ripe by simply moderating the heat of the conservatory; also by cutting the clusters just before they are entirely ripe, dipping the ends of the stalks into a mixture of hot rosin and sealing-wax, and then suspending them in a cool, dry and dark atmosphere.

Tomatoes will keep fresh and sound for months, if carefully picked from the vines before quite ripe, allowed to sweat twice, then wiped dry, and stored as apples should be; they need not be wrapped in paper. Lemons and oranges require, however, to be wrapped in thin tissue paper. Bananas will remain fresh for a long time if only allowed to hang to their stem in a slight current of cool air. We have avoided suggesting the use of the thermometer, as we know full well that few country farm homes possess such instruments, and, indeed, when artificial means are not at hand to afford heat or to produce it, a thermometer is of no practical use. What we advocate is the storing of fruits in commodious, cool, and well ventilated garret stores, rather than the huddling of them pellmell into damp underground cellars. Any man or woman accustomed to live much in open air is to himself or herself a certain thermometer, their sense of heat and cold being more acute than that of those living in-doors.—*J. W. L., in Tribune and Farmer.*

Sweet potato vines should not be allowed to take root at the joints; move them at each hoeing.

FRANK CRANE,

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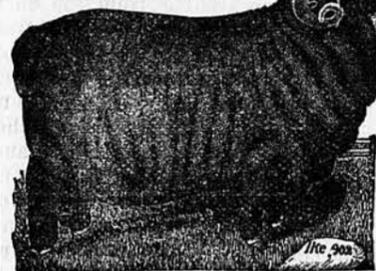
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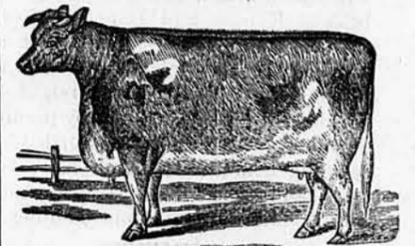
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The Veterinarian.

[The paragraphs in this department are gathered from our exchanges.—ED. FARMER.]

TONIC AND ALTERATIVE TREATMENT.—I have a heifer about nine months old that I think was bitten by a rattlesnake, about four or five weeks ago, under the jaw. Reduced the swelling by poulticing with soap and sugar. She is quite thin in flesh; coat staring; poor appetite; does not move about freely. Please prescribe. [Give, morning and evening, during every other week, in a pint of thin gruel, from a bottle, two ounces of a mixture composed of one part of tincture of iodine and two parts each of tincture of iron and tincture of gentian. Give steamed or cooked grain or mill-feed, and grass instead of hay.]

DOCKING HORSES.—Why do the French dock their horses? There is a great dispute here among horse owners. Some say it is the perfect ones that are docked, others the blemished ones, and still others say that they are all docked. [The operation is performed simply as a matter of fashion or custom, and is mainly confined to the heavy breeds of horses. It originated from the idea that for cart purposes the tail was in the way of whiffle gearing. It is done without regard to perfection or imperfection in the horse, in parts of France where the operation is performed, and generally done while they are young colts.]

DRYING UP A BAG.—A half-bred Norman mare colt, foaled about June 24, made bag and is now giving milk, and has to be milked to prevent caking and much pain; was found in this condition at a week old. Its teats are nearly as large as a grown mare's; it is a fine, large, bony colt. Now, as this is a rare occurrence, give a good remedy for drying up the milk. [Relieve the bag by gentle milking once daily, so long only as it may seem necessary to avoid danger of complications. Apply twice or thrice daily to the surface of the bag, a sufficiency of an ointment made of one part of powdered galls and four parts of hog's lard.]

SKIN DISEASE.—Several of my horses are constantly rubbing themselves, especially their manes and tails. They have rubbed until the skin is raw, and the hair of the mane and tail completely worn off. Can you suggest a remedy? [From the fact that several of your horses are attacked with a skin disease presenting similar characteristic symptoms, we are led to believe that the disease is contagious, and is probably the mange. The following is one of the best remedies we know of: Take of oil of tar, 2 ounces; whale oil, 2½ pints; mix and apply freely with a brush. A good washing with soft soap and warm water occasionally will materially aid in eradicating the disease.]

WORMS IN SWINE.—Please let me know what will cure worms in swine. They have a white worm about eight inches long. [Give each animal, first thing in the morning, a teaspoonful of oil of turpentine, mixed with a quart of sweet milk, or thin gruel. They will drink this voluntarily, and it may be continued every morning during a week. If found necessary, it may be repeated after an interval of ten to fourteen days. Give plenty of sour milk or buttermilk; also, wood ashes, charcoal and salt, which may be placed in separate small troughs, and should not be mixed with their food. A few sliced raw onions may be fed with their food.]

INDOLENT TUMOR.—I have a horse that had his shoulder galled in working. It raised a bunch, which seems to

be fast to the flesh. It has been there about five weeks. I have applied sweet oil and gum camphor which has reduced it about three-fourths, but the rest does not seem to disappear as fast as I would like to see it. [Apply, once or twice a day, after clipping the hairs short, a small portion of tincture of iodine. This may be continued during every other week. It will require some length of time to reduce or remove such indolent tumors. If it should be necessary to use the horse before a cure is accomplished, a breast harness should be provided. Tumors of this kind are generally caused by ill-fitting, too large or too small collars, or from uneven or poor stuffing in the same.]

Wash horse collars with carbolic soap and then oil the inside.

A Massachusetts agricultural society offers premiums for the best gardens.

When all other remedies fail then try Dr. King's New Discovery for Consumption. Trial Bottles free.

After the summer crops are harvested the farmer is entitled to a little play-spell, and he should have it.

If your horses have sore shoulders, scratches, cuts or open sores of any kind, use Stewart's Healing Powder.

BERKSHIRE HOGS.

My herd now numbers about Forty Breeding Sows and Four Boars, including representatives of the best families of the day, and also prize-winners at the leading shows of this country, Canada and England. I have now in use in my herd sows that won in England in 1883 1882 and 1881, and descendants of noted prize-winners previous to that time. The principal boar in use in my herd at present is "Duke of Monmouth" 11361, who won in 1883 the first prize at four leading shows in England, including first at the Royal Show, and also first prize at two leading shows in Canada. He thus won six continuous first prizes without being beaten, a like record I believe never atained by any other boar. I paid \$400 for "Duke of Monmouth." He is a splendid breeder, an animal of great constitution and comes from the same family as my old boar, "Lord Liverpool" 221, for whom I paid \$700, and who is now almost eleven years old and still alive. I have now a splendid lot of pigs from three to six months old, the bulk of which are got by "Duke of Monmouth." I would also spare a few of my sows, young or old, when in pig, and part of my breeding boars. I do not advertise prices as low as the lowest, for I cannot afford to sell as low as those who bought a cheaper class of stock to start with, but my prices are reasonable and within the reach of all who know the value of first-class stock. My herd of Berkshires show as much size as hogs of any breed, and I am sure I can show more quality, activity, constitution and size than is combined in any other breed of hogs. Almost if not every prominent herd of Berkshires in the West contains representatives from my herd, and this alone, considered in connection with the many prizes I have won for ten years past at our largest shows, proves beyond a doubt the quality of stock I am producing from year to year. No breeder of any kind of hogs in the United States or Canada has for several years past bought and retained in his herd so many valuable animals at an equal cost as I have. I have issued a new catalogue this season containing the pedigrees in full of my herd and a limited description of each animal, together with a complete list of prizes won for several years past. This catalogue I will mail free to all who feel interested enough to write for it.

I am also breeding High-grade Short-horn Cattle and Merino Sheep. Have now about 100 good young rams for sale.

I have reduced rates for shipping. All parties visiting from a distance will be met at the train, if notice is given in time.

For prices or any further information, address
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The official organ of the NATIONAL WOOL-GROWERS' ASSOCIATION. These sheep are donated by leading breeders of the United States, to aid in securing an immediate and immense circulation for THE QUARTERLY in every State and Territory. A handsome 64-page magazine, only 50 cents a year in clubs of ten; single subscriptions 60 cents. For particulars, cash commissions, etc., address at once,

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Herds of pure-bred and high grade Short-horn Cattle, Poland-China Swine, Shepherd Dogs and Plymouth Rock Fowls. The best herd of Poland-Chinas west of the Mississippi river, headed by Block-foot 2261, Young U. S. 4491. Lovable vol. 6 (own brother to Look-No-Farther 405) and Seek-No-Farther (a son of Look-No-Farther). All stock sold eligible to the Ohio Record. Send for new catalogue
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Box 298, Junction City, Kas.

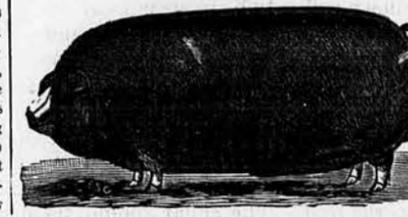
Thoroughbred Poland-Chinas



YOUNG PRINCE.
AS PRODUCED AND BRED BY
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We are raising over 800 pigs for this season's trade. Progeny of hogs that have taken more and larger sweepstakes and pork-packer's premiums than can be shown by any other man on any other breed. Stock all healthy and doing well. Have made a specialty of this breed of hogs for 37 years. Those desiring the thoroughbred Poland-Chinas should send to head quarters. Our breeders will be registered in the American Poland China Record. Photograph of 34 breeders, free. Swine Journal 25 cents. Three-cent stamps taken.

Poland-China and Berkshire HOGS.



We have been breeding Poland-China and Berkshire Pigs from 2 to 4 months old. Ours is the largest herd of pure-bred Swine in the State, and the very best strains of blood of each breed. If you want any of our stock write us and describe what you want. We have been in the business many years, and have sold many hogs in this and in other States, and with universal satisfaction to our patrons. Our hogs are fine in form and style, of large stock, quick growth, good bone, hardy and of wonderful vitality. Our Poland-Chinas are recorded in the American Poland-China Record.

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Improved Poland-China Hogs



We have been breeding Poland-China Hogs for twenty years. The long experience obtained has enabled us to select none but the choicest specimens for breeding purposes. We now have

Hogs of Quick Growth,

Easily fattened and early matured, showing a great improvement in form and style, especially in the head and ears.

Our breeders consist of the finest lot of Sows and three of the best Boars in the State, being descendants from the best families in the United States. Those wishing choice pigs should send orders in early as there is a very large demand for stock. Mail orders filled with dispatch. Pedigrees furnished with all hogs sold.

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I have thirty breeding sows, all matured animals and of the very best strains of blood. I am using three splendid imported boars, headed by the splendid prize-winner Plantagenet 2919, winner of five first prizes and gold medal at the leading shows in Canada in 1881. I am now prepared to fill orders for pigs of either sex not skin, or for matured animals. Prices reasonable. Satisfaction guaranteed. Send for catalogue and price list, free.
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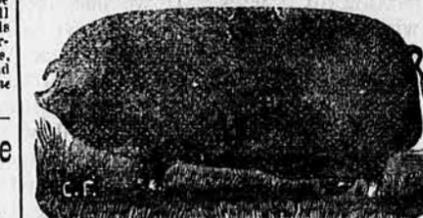
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DEVOTED TO ALL BREEDS—THE BREEDING MANAGEMENT AND IMPROVEMENT—ISSUED SEMI-MONTHLY. \$1.25 PER YEAR—ADDRESS MORRIS PRINTING CO., PUBLISHERS, INDIANAPOLIS, IND. MENTION THIS PAPER.

SEND FOR SAMPLE COPY.

The Busy Bee.

How to Winter Bees.

As the winter again approaches, bee-keepers begin to inquire how they may safely winter their bees. This matter of wintering is the only element in apiculture that is precarious, and when we remember that such men as John Davis, of Michigan, with his scores of colonies, and O. O. Poppleton, of Iowa, with his hundreds of colonies, and D. A. Jones, of Ontario, with his thousands, all located in the cold, bleak North, winter without loss every winter, may we not conclude that wintering is only precarious as men are ignorant or careless? With the requisite knowledge, and an equal amount of care, it is more than probable that universal success might come with every winter.

As Mr. Poppleton says, to insure safe wintering, preparation should commence early in the season. The colonies should be kept strong, and should be kept breeding, by stimulative feeding if that is necessary, till well into September, that there may be the proper number of young bees. Some bee-keepers ridicule this idea, but such men as Jones hold it to be very essential.

As soon as frost comes, at least as early as October 1st, when the work of the year is over, the bees of each hive should be given at least thirty pounds of good capped honey in frames that are at least two-thirds or three-fourths full. If from too close extracting, or a poor honey yield, the requisite amount is not in the hive, then the bees should be fed at once, that they may have time to get all capped before the cold weather prevents work. Don't guess at the amount of honey, but weigh, that there may be no mistake. For feed, we may use good extracted honey, or, better still, granulated sugar made into a rich syrup by dissolving in water and heating till it boils. If we use hives with tightened bottom boards we can follow Mr. D. A. Jones' method, and turn the honey right into the back of the hive after we have raised the front. If we have separated bottom boards we may use any of the convenient feeders. In feeding we must be careful to feed late in the day, and not spill any feed about the apiary, or we may have trouble with robbing. Should any bees get to robbing, which will be denoted by fighting and a great commotion in front at the entrance of the colony being robbed, we should either cover the entrance of this hive with wire gauze, or else nearly close it with blocks. In two or three days the entrance may be again opened.

After we have given the bees sufficient food, we should, by the use of the division-board, confine the bees on the frames which contain their stores, and exclude all others, so that the bees will have only to warm the part of the hive actually used. Above this chamber we should place fine, dry chaff or sawdust, which, for convenience and neatness, had better be confined in a sack. If we are to winter out-of-doors, either in chaff hives or with chaff or sawdust packed about our hives, we should put similar chaff or sawdust cushions at the sides of the winter combs, just outside the division boards, which latter had better not reach quite to the bottom of the hive.

In all the combs to be used in winter there should be cut a small central hole, so that the bees can easily pass through from one comb to another. These may be cut when we weigh the combs.

Many, with Mr. Poppleton, prefer chaff hives. These are double-walled at the ends of the frame, with a six-inch space filled with fine chaff. Thus

we see that with the cushions already mentioned the bees are surrounded on all sides with a protection from the cold. By the use of chaff hives their friends claim that they can winter successfully, and that they are protected against "spring dwindling." Others object to the cost of these hives and to their weight, which makes them hard to handle, and many think them unsafe in very cold winters, perhaps because they were not fairly tried.

Owing to these objections, others, who wish to winter on the summer stands, place a box outside of the hives, leaving a space of ten or twelve inches, which they fill with chaff or sawdust. It is arranged so that the bees can fly if the weather is so warm as to incite activity, with this protection. Expense and ill success have robbed this method of many of its friends?

Probably no method has so many friends in the Northern States, where wintering is a vexed question, as that of cellar-wintering. This is high praise for the cellar, as there are so many poor cellars that we should expect too many failures to keep this style of wintering in good repute. If we may judge from experience, a properly-constructed cellar, with the proper preparation already referred to, will never fail.

The cellar should be entirely beneath the earth, and be so ventilated that the air should always be sweet, and the temperature always uniform at about 45 deg. F. While it should never be more than two degrees warmer than this, it will do no harm if it is five degrees colder at times. The best way to secure this is by sub-earth ventilation. A four-inch pipe should extend from the bottom of the cellar to connect with a stove-pipe in the room above. From near the bottom of the cellar there should be another pipe (six-inch tile is the best) extending for 80 feet through the earth, running below the frost line and then reaching the surface of the earth, where it should be protected by wire gauze, so that vermin could not enter the pipe. We see that as a fire is built in the stove the air is drawn from the cellar and is supplied by the sub-earth pipe. This cools the air when the weather is warm and warms it when it is cold. I have known such a cellar to be in successful use for nearly half a score of years; and several others for a less time. Some secure ventilation by the usual means and keep the right temperature by refrigerator, a cistern in the cellar, or a stream of water passing through it. The sub-earth plan is the most scientific and works best. The cellar should be dry and quiet.

The bees should be removed to the cellar before winter sets in. The hives should be dry, if possible, when put in, and the bees should be set in so quietly that they would not be disturbed. Once in, we remove the covers, leaving the cushions on and opening the entrances. Thus arranged, we may leave the bees till the pollen of April bids us to prepare for the work of a new year.

The only valid objections to cellar-wintering is the labor of moving the bees and the danger of spring dwindlings. The expense of moving is less than that of either of the other methods, and, if we properly confine the bees by use of the division board as they commence to work in spring, we may have no fear of dwindling, especially if we have such a cellar as suggested above.—Prof. Cook, in *Rural New-Yorker*.

In Russia, on the 9th of March, the day on which the larks are supposed to arrive, the rustics make clay images of those birds, smear them with honey, tip their heads with tinsel, and then carry them about, singing songs to spring, or to Lada, their vernal goddess.

Principles of Feeding.

It is a question whether anything is really gained by forcing the growth of animals, that is, crowding an ordinary lifetime into an unnaturally short period. A contemporary writer in the East offers thoughts in discussing the subject in this fashion: He says it has often been claimed that the methods of breeding and feeding cattle have been so much improved of late years that the period of maturity has been hastened more than one half—that is, a sheep or a pig which matured at three years or a steer which was ready for slaughter at five years, is now ready for the butcher at less than half these ages. Pigs are said to be ready for pork at nine months, wethers for mutton at twenty months, and a two-year-old steer is ready for the block at that age. It is to be feared that these claims are greater than can be justly allowed. No doubt some animals, by excessive forcing, are made as fat and reach as heavy a weight at these premature ages as those used to do in twice the time, but it is a question if this forcing is profitable either to the feeder or the consumer. On the one hand, the animal is forced to consume as much food in two years as was formerly spread over four years, so that on the whole there is no gain but in time, while on the other hand the consumer has very immature or half-grown meat which is devoid of flavor or nutritive quality, and the meat is overloaded with fat, which is a waste. Physiologically, it is a matter of doubt if the muscular growth of an animal can really be hastened by any process of feeding. Fat can be produced, no doubt, but fat is a diseased condition of the system, and an excessively fat animal would soon die under continued feeding. But if we examine the meat of one of these young, overgrown animals it is found to be in very great disproportion to the fat. It is quite common, for instance, for the nine-month-old pigs which weigh 300 pounds, to be turned wholly into the lard kettle because the few pounds of flesh under the fat is not salable or useful as food. On the whole, it certainly does appear as if we had carried the forcing system of feeding to an unprofitable, extreme. Every year the losses of swine by disorders clearly traceable to over-feeding increases in number, and although we are told that the dreaded diseases have been overcome and have disappeared, yet the feeding season no sooner begins again when the hog cholera breaks out as plentifully as at any time before. It is a question if we can safely follow English precedents in this respect of forcing animals to prematurity. Certainly, if we are to suffer the pains and penalties, the diseases and losses among our live stock which English farmers are complaining of, it is very clear that we cannot afford to do it and had better make haste more slowly.

The butter tree was discovered in the central part of Africa; from its kernel is produced a nice butter which will keep a year.

The "woolsack," as the Lord Chancellor's seat in the House of Lords is called, is actually a large square bag of wool, without either back or arms, covered with plain red cloth. It is said to have been introduced in Queen Elizabeth's time as a memento of the passing of an act prohibiting the exportation of wool; but Lord Campbell, in his "Lives of the Lord Chancellors," finds its origin in "the rude simplicity of early times, when a sack of wool was frequently used as a sofa—when the judges sat on a hard wooden

bench, and the advocates stood behind a rough wooden rail, called the bar."

CATARRH Hay Fever



A type of catarrh having peculiar symptoms, it is attended by an inflamed condition of the lining membrane of the nostrils, tear ducts and throat, affecting the eyes. An acrid mucus is secreted, the discharge is accompanied with a painful burning sensation. There are severe spasms of sneezing, frequent attacks of running head-ache, a watery and inflamed state of the eyes.

CREAM BALM is a remedy founded on a correct diagnosis of this disease and can be depended upon. It has gained an enviable reputation wherever known displacing all other preparations.

Not a Liquid or Snuff.

Apply by the finger into the nostrils. It will be absorbed, effectually cleansing the nasal passages of catarrhal virus, causing healthy secretion. It allays inflammation, procures the membranous lining of the head from additional colds completely heals the sores and restores the senses of taste and smell. 50 cts at druggists; 60 cts by mail. Sample bottle by mail 10 cts.

ELY BROS., Druggists, Owego, N. Y.



TOPEKA Medical & Surgical INSTITUTE.

This institution is incorporated under the state laws of Kansas. It has had a flourishing existence for ten years, during which time thousands of Chronic and Surgical diseases have been treated successfully. Drs. Mulvane, Munk & Mulvane, the physicians in charge, besides doing an acute city practice, devote themselves to the treatment of all kinds of chronic and surgical diseases, in which direction lies their several specialties in Surgery, Gynecology and Eye and Ear affections. They are prepared to treat successfully by the latest and most approved methods, Rheumatism, Paralysis, Neuralgia, Epilepsy, Chorea, Chlorosis, Dropsy, Scrofula, Lysa, psia, Consumption, Nasal Catarrh, Bronchitis, Gout, Polypus, Tumors, Epithelial Cancer, Old Ulcers, Skin Diseases, Deformities, Granulated Lids, Strabismus, Uterine troubles, Seminal Weakness, Spermatorrhea; disorders of the Kidneys, Liver, Bladder, Rectum, and all private diseases; Tape Worms removed in from one to four hours without fasting; Hemorrhoids or Piles cured without the use of the knife or ligature; artificial eyes inserted.

MULVANE, MUNK & MULVANE.

Also Medical Attendants to the celebrated Mineral Wells of Topeka. Correspondence solicited.

References:—Hon. John Francis, Hon. P. I. Bonebrake, J. R. Halliwell, U. S. Attorney.

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Is a highly concentrated extract of Sarsaparilla and other blood-purifying roots, combined with Iodide of Potassium and Iron, and is the safest, most reliable, and most economical blood-purifier that can be used. It invariably expels all blood poisons from the system, enriches and renews the blood, and restores its vitalizing power. It is the best known remedy for Scrofula and all Scrofulous Complaints, Erysipelas, Eczema, Ringworm, Blisters, Sores, Boils, Tumors, and Eruptions of the Skin, as also for all disorders caused by a thin and impoverished, or corrupted, condition of the blood, such as Rheumatism, Neuralgia, Rheumatic Gout, General Debility, and Scrofulous Catarrh.

Inflammatory Rheumatism Cured.

"AYER'S SARSAPARILLA has cured me of the Inflammatory Rheumatism, with which I have suffered for many years."

W. H. MOORE.

Durham, Ia., March 2, 1882.

PREPARED BY

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

Sold by all Druggists; \$1, six bottles for \$5.

\$500 CASH, FREE!

We offer the above amount of money and **THIRTY-FIVE GOLD WATCHES**, free to the first 148 persons answering the following BIBLE question: **Who reared the word Grandmother found in the Bible? Mention the Book, Chapter and Verse.**

The first person answering this question correctly, on or before October 15th, will receive \$75 cash. If we receive more than one correct answer, the second will receive \$70; the third, \$60; the fourth, \$55; the fifth, \$50; the sixth, \$45; the seventh, \$40; the eighth, \$35; the ninth, \$30; the tenth, \$25; the eleventh, \$20; the twelfth, \$15; the thirteenth, \$10; the fourteenth, \$5. **THIRTY-FIVE GOLD WATCHES** to the next thirty-five correct answers, and one dollar each to the next one hundred people answering it correctly. If you are not first, remember that you may be second or third, so you stand a good chance for a large prize. Each competitor must, in every case, send 50 cents for a sample package of **ROYAL TEA** with their answers.

THE PURE, UNADULTERATED UNCOLORED ROYAL TEA is such as the crowned heads of Europe use. Imported direct. The first time the Royal Tea has ever been introduced in America. A revolution in American tea drinkers. Only Nature's coloring is used in the Royal Tea. The fresh leaves are dried and prepared in such a way as to retain all their delicate aroma and flavor, together with strength and body. One trial of Royal Tea and you will forever do away with all impure, high colored and poisonous articles. **SPECIAL OFFER!** To introduce this Tea in America we will, for a limited time, (until October 15th), send (sample box) one half-pound Royal Tea, prepaid, to any address on receipt of only 50 cents, one pound-box, prepaid, \$1. 50 cents is in addition to the other prizes, we offer \$500 more to be divided equally; (\$5 each) to the first one hundred persons sending us the correct answer to the above question and sending \$1 for one-pound sample Royal Tea. The money will be promptly sent to the successful ones. Send one dollar in P. O. order, postal note, or registered letter. **Don't wait, but send your answer at once.** Postage stamps taken. Full instructions to agents how to make \$10 a day introducing the Royal Tea given with each sample box. Address **MAYO & CO., 166 La Salle St., Chicago, Ill.**

Healthy vs. Injurious Brain Work.

There is such a thing as mind strengthening work. In truth, it is, as every physiologist knows, only by work minds or, more correctly speaking, brains can be strengthened in their growth and naturally developed.

We know that food is practically just as truly outside the body after it has been eaten, digested, and even taken into the blood current, as it is when it lies on the table.

Work may be carried too far, in fact to such a point that not only the last reserve of power for action, but the ultimate unit, so to say, of the force of nutrition, which is, as we now believe, identical with the force of nutrition, which is, as we now believe, identical with the force of general activity, may be expended in work and the organism left so utterly powerless that its exhausted tissues can no longer appropriate the food supplied or placed within their normal reach.

Just as extreme weakness and faintness of the body as a whole produce restlessness and loss of control, so extreme exhaustion of the brain produces mental agitation and loss of healthy self-consciousness. This is how and why the "overworked" become deranged.

What, then, can be the excuse pleadable by those who heap on the brains of the young or adolescent such burdens of mind labor and worry as exhaust their very faculties of self help and leave them a prey to the vagaries of a starved brain?

It may be a sublime idea, that of a highly educated people; but if it should happen that the realization of this beautiful dream of our philosophic reformers can only be achieved by the slaughter of the weak, it will scarcely console the national conscience to reflect that, after all, "the survival of the fittest" is the law of nature.—Lancet.

THE STRAY LIST

HOW TO POST A STRAY

BY AN ACT of the Legislature, approved Feb 27, 1866, section 1, when the appraised value of a stray or strays exceeds ten dollars, the County Clerk is required, within ten days after receiving a certified description and appraisal, to forward by mail, notice containing a complete description of said strays, the day on which they were taken up, their appraised value, and the name and residence of the taker up, to the KANSAS FARMER, together with the sum of fifty cents for each animal contained in said notice.

How to post a Stray, the fees fines and penalties for not posting.

Broken animals can be taken up at any time in the year.

Unbroken animals can only be taken up between the 1st day of November and the 1st day of April, except when found in the lawful enclosure of the taker-up.

No persons, except citizens and householders, can take up a stray.

If an animal liable to be taken, shall come upon the premises of any person, and he fails for ten days, after being notified in writing of the fact, any other citizen and householder may take up the same.

Any person taking up an stray, must immediately advertise the same by posting three written notices in as many places in the township, giving a correct description of such stray.

If such stray is not proven up at the expiration of ten days, the taker-up shall go before any Justice of the Peace of the township, and file an affidavit stating that such stray was taken up on his premises, that he did not drive nor cause it to be driven there, that he has advertised it for ten days, that the marks and brands have not been altered, and the value of such stray, and a description of the same and its cash value. He shall also give a bond to the state of double the value of such stray.

The Justice of the Peace, all within twenty days from the time such stray was taken up, (ten days after posting) make out and return to the County Clerk, a certified copy of the description and value of such stray.

If such stray shall be valued at more than ten dollars, it shall be advertised in the KANSAS FARMER in three successive numbers.

The owner of any stray, may within twelve months from the time of taking up, prove the same by evidence before any Justice of the Peace of the county, having first notified the taker up of the time when, and the Justice before whom, he shall give a full and true description of the same, and the order of the Justice, and upon the payment of all charges and costs.

If the owner of a stray fails to prove ownership within twelve months after the time of taking, a complete title shall vest in the taker up.

At the end of a year after a stray is taken up, the Justice of the Peace shall issue a summons to three householders to appear and appraise such stray, summons to be served by the taker up; said appraiser, or two of them shall in all respects describe and truly value said stray, and make a sworn return of the same to the Justice.

They shall also determine the cost of keeping, and the benefits the taker up may have had, and report the same on their appraisal.

In all cases where the title vests in the taker-up, he shall pay into the County Treasury, deducting all costs of taking up, posting and taking care of the stray, one-half of the remainder of the value of such stray.

Any person who shall sell or dispose of a stray, or take the same out of the state before the time shall have vested in him shall be guilty of misdemeanor, and shall forfeit double the value of such stray and be subject to a fine of twenty dollars.

Strays for week ending August 20, '84.

Sumner county—Wm. H. Berry, clerk. PONY—Taken up by J C Smith, in Valeried tp, July 28, 1884, one bay mare pony, branded on left hip and J on left shoulder; valued at \$10.

Sedgwick county—E. P. Ford, clerk. PONY—Taken up by John Chritton in Illinois tp, July 28, 1884, one bay mare pony 3 years old, hind feet white, had leather halter on with picket-rope indelible brand on left hip and left shoulder; valued at \$50.

PONY—Taken up by Elizabeth Johnson in Illinois tp, July 28, 1884, one roan mare, 7 years old, blaze face, hind feet and left fore foot white, diamond-shaped brand on left hip.

Rush county—L. K. Hain, clerk. MARE—Taken up by Ira Varney, of Center tp, July 28, 1884, one gray pony mare, 14 hands high, about 7 years old, branded on right hip with an inverted A, indelible brand on left hip; valued at \$12.

Davis county—P. V. Trovinger, Clerk. MARE Taken up by John Butts of Smoke Hill tp, July 19, 1884, one bay mare about 8 years old, 13 hands high, branded "O" on both shoulders, right hind foot white, small star in forehead; valued at \$30.

Rawlins county—Cyrus Anderson, clerk. STEER—Taken up by James McKnight, in Atwood tp, January 1, 1884, one gray steer, branded with "MHS" on left side and with a mark similar to figure 4 on right shoulder, crop from under part of left ear, and with crop from upper part of right ear; valued at \$15.

Hodgman county—J. P. A. kin, clerk. PONY—Taken up by George T Elder in Mena tp, August 4, 1884, one medium-size bay mare pony, right hind and fore foot white, no brand; valued at \$25.

Harvey County—John C. Johnston, clerk. HORSE—Taken up by G F Gilmore of Weston tp, August 8, 1884, one iron gray horse, about 15 1/2 hands high, 3 years old, no marks or brands; valued at \$100.

Strays for week ending August 27, '84

Linn county—J. H. Madden, clerk. MARE—Taken up by W B Perry, in Potostol tp, May 31, 1884, one 3-year-old brown mare, about 14 hands high, had small bell on; valued at \$45.

MARE—Taken up by J I Gifford Potostol in one black yearling sow, crop off right ear, and swallow-fork and underbit in left ear; valued at \$11.25.

Reno county—W. R. Marshall, clerk. HEIFER—Taken up by S D Schamp in Sumner tp, (Waverly P. O.) July 20, 1884, one dark red yearling heifer, white spot in forehead; valued at \$10.

HEIFER—By same, one light red yearling heifer white spot in forehead and some white on both sides; valued at \$10.

Riley county—F. A. Schermerhorn, clerk. MARE—Taken up by I J Day, Leonardville August 7, 1884, one bay mare about 6 years old, 14 hands high, weight about 800 lbs., black legs from knees down, small white spot on forehead and one on nose, no marks or brands; valued at \$40.

Jefferson County. J. R. Best, Clerk. PONY—Taken up by W H Howman, in Rock Creek tp, (Waverly P. O.), July 21, 1884, one brown mare pony, 16 years old, 11 hands high, scar on right thigh; valued at \$40.

PONY—By same, one brown horse pony, 10 years old, 14 1/2 hands high, one hind foot white; valued at \$40.

Montgomery county—H. W. Conrad, clerk. COLT—Taken up by Henry Paper, of Rutland tp, June 4, 1884, one black mare colt about 2 years old, branded H. G. on left shoulder; valued at \$30.

HORSE—Taken up by James Bell, of Caney tp, May 30, 1884, one black horse, 2 years old, branded with letter T, on right shoulder; valued at \$20.

COLT—Taken up by John Pead, of Sycamore tp, one sorrel mare colt, 3 years old, with white spot in forehead and one on nose, scar on right side of neck; valued at \$35.

MULE—Taken up by Eli Reynolds, of Cherokee tp, July 24, 1884, one mouse colored mule, 14 1/2 hands high about 10 years old; valued at \$75.

Johnson County.—Henry V. Chase, Clerk. HORSE—Taken up by A J Miller, in Monticello tp, one mouse-colored horse, 1 1/2 hands high, saddle and collar marks, shod all around, dark streak on back, about 10 years old; valued at \$35.

Strays for week ending Sept. 3, '84.

Sedgwick county—E. P. Ford Clerk. PONY—Taken up by A L and D F Coffey, in Morton tp, July 17, 1884, one dark brown mare pony, 8 years old, branded with L above a line and FG (arms on F turned to wrong side) below the line—on left hip; valued at \$27.50.

Butler county—James Fisher, clerk. HORSE—Taken up by George Cooper, in Glencoe tp, August 11, 1884, one bay horse, about 15 1/2 hands high, about 8 or 9 years old, both hind legs white up to the pastern joint, left fore foot white, star in forehead, shod in front, collar marks and scarred with barb wire; valued at \$40.

MULE—Taken up by John Vanbebogart, in Towana tp, one brown horse mule, about 12 years old, 14 hands high, collar marks; valued at \$40.

Shawnee county—Chas F. Spencer, clerk. COW—Taken up by John Sutherland, in Topeka tp, August 25, 1884, one white cow, roan neck, piece cut out under part of right ear, 9 years old; valued at \$30.

COW—Taken up by Henry Hawkin, in Topeka tp, August 25, 1884, one white cow, roan neck, piece cut out under part of right ear, 9 years old; valued at \$20.

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The Poultry Yard.

Partridge Cochins.

The shape and color of the neck of a Partridge Cochin cock, to be a standard one, should appear "short and neatly curved." The size of the specimen must be considered in determining whether or not the neck possesses the required shortness. It must be short in comparison with the size.

Then, again, the hackle must be full, abundant, and flowing well over the shoulders. The phrase "neatly curved" refers to the arching of the neck. In cocks the arching should be more apparent than in cockerels, since the feathering on an adult bird is more profuse than on a cockerel. The base of the neck at its juncture with the back, shoulders and breast, should appear large and broad, rendered so by the abundance of hackle, and also by its being of sufficient length to "flow well over the shoulders." The color of the upper one-half of hackle, or thereabouts, should appear red, or orange-red; the lower one-half red or orange-red with a distinct black stripe down the center of each feather, and to be more perfect, as in that of a Light Brahma hackle, it might properly read, "the stripe running nearly parallel with the edge of the feather, and tapering to a point near its extremity." The red lacing on the edges of the feather should be clear, and should have no smutty appearance, or fringing or mousing of black near the tips; neither should the shafts or quills of the hackle feathers be light or yellow in color, but black. Positive white should not appear in the fluffy portion of the hackle feathers—bluish white gradually shading into the black stripe being the desirable under-color. The feathers up the neck in front, and under the beak and wattles exposed to view by the spreading of the hackle to either side, should be of the same character as those on the breast, and in color, black, but in good pullet-breeding males more or less redness appears, intermixed with the black, and can not be cut as a standard defect in color.

A neck should be discounted from one to two points for each of the following defects, viz: Carried too far forward; too long; too narrow at base; too straight; hackle too short; failure in black stripe; white under-color; too light or too dark red in general color of neck. White appearing on the outside of neck, two to four outs. Light or yellow quills or feather shafts in hackle, two to three outs.

The back must be broad at shoulders, and while the Standards, both old and new, fail to give the proper color of that portion of the back which is between the shoulders, hackle and saddle, we will state that it should be the same as that on the back of a Standard B. B. Red Game cock, viz.: Rich, velvety, dark red, except under the hackle in that portion of the back known as "cape" in Light Brahmas, which should be black. The Standard says the back should have "a gentle rise from the middle thereof to the tail" (3). This phraseology is very tame and convinces us that the committee who framed the Cochin Standard were not awake to the importance of making the description such as to demand a true Cochin—one possessing the quality to produce females with backs "broad, flat and short, with the cushion rising from the middle thereof and partially covering the tail." The saddle of a Cochin cock should not only rise gently to the tail, but, as we view it, it should rise in something of a convex shape, and resting well up on the tail. The saddle feathers should be red or orange-red in color, with a black

stripe down the middle of each, very abundant, standing well out from the back, giving a broad and massive appearance, and reaching down to the fluff at the points of the wings.

The back should be cut for the following defects, from one to two points each, viz.: Too long; too narrow; too straight; deficiency in saddle; defective color of saddle feathers; defect in color of back between neck and saddle; light or yellow shafts in saddle; too much white in under color of saddle.

On page 17 of the new Standard, the color of the plumage on the back of the females of this variety was omitted by mistake, and to the clause on back, as therein stated, should be added, "and in color, rich brown, distinctly and handsomely penciled with a darker brown." So far as this penciling is concerned, we do not think the phrase "penciled with a darker brown" carries the contrast between the ground color of the feathers and their penciling quite far enough, and would prefer it to read, "with darker brown or black."

A hen penciled with black, from the nature of things, will prove to be a better cockerel breeder than one where the penciling retains the reddish brown. Males must be solid black in breast and body to be fully Standard, and in case their dams run brown throughout, and possess no element of black in them, the chances for mottled and brown breasted cockerels are much increased. The same may also be said of Dark Brahmas; the stronger the black in the penciling of females the more black-breasted cockerels result in the progeny, hence the great care, experience and skill requisite in mating penciled varieties. The element of black must be strong in the female if good breasts are sought in the male progeny.

Our observation for years has forced upon us this conclusion, having often noticed that in yards where females have shown clearly defined, black penciling up the breast, and even to the throat, the percentage of good colored cockerels was much greater. Then again, the more clearly defined the penciling is from the ground color, the more beautiful the specimen; the hackle feathers have a better stripe, the tail coverts in females are better penciled, a richer color of black appears in the breasts and fluffs of males. And herein is the reason why some penciled strains of both Partridge Cochins and Dark Brahmas produce a greater percentage of fine specimens than others.

A decidedly broad, black stripe in penciling is not desirable, as too much black causes the specimen to appear too dark in general, and very broad, black penciling induces the ground color to be too dark and smutty. There is, as we have often remarked, a "happy medium," which, if a breeder, through much "trial and tribulation," perhaps, finally reaches, he will be well repaid for his care, skill and attention.—*Fancier's Gazette.*

Aggravated Bumble-Foot.

The complaint occurs in the sole of the foot, usually of male fowls, and is an ugly disease, if it has been neglected until the swelling gets to be formidable. The cock then becomes lame, and is useless as a breeder while this affection sticks to his foot.

The sore (or ulcer) is attached to the bone of the foot, and it increases from that point outward, inflaming the flesh and muscles until it ripens and breaks. But this is exceedingly slow in developing, on account of the toughness of the skin and the parts of the foot where this trouble originates.

The internal portion of the "bumble-foot" sore or bruise matures in a thick, cheesy kind of pus. If this can be re-

moved at the outset, when the first soreness and swelling make their appearance, the pus may be let out, and the foot will heal up.

To effect a cure of this the foot must be lanced crucially; that is, in this wise X across the face of the swelling, down thoroughly to the bone, and laid open. The matter will then soon discharge, and the bird may be saved. After it has matured it is a very difficult thing to cure it, and therefore it must be attended to early.

If pigs are not pastured in the orchard, the fallen fruit should be picked up and fed to them.

Good Paris green should be mixed with 150 parts of dust or gypsum for the destruction of potato bugs.



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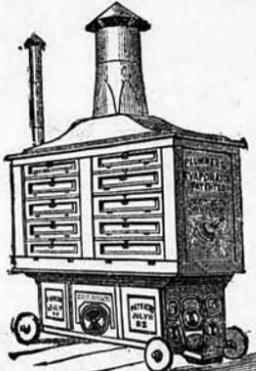
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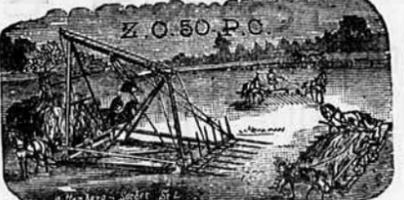


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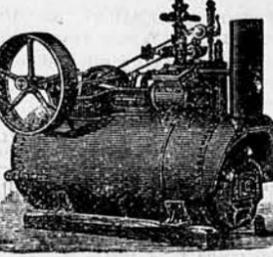
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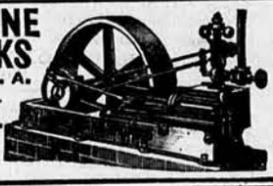
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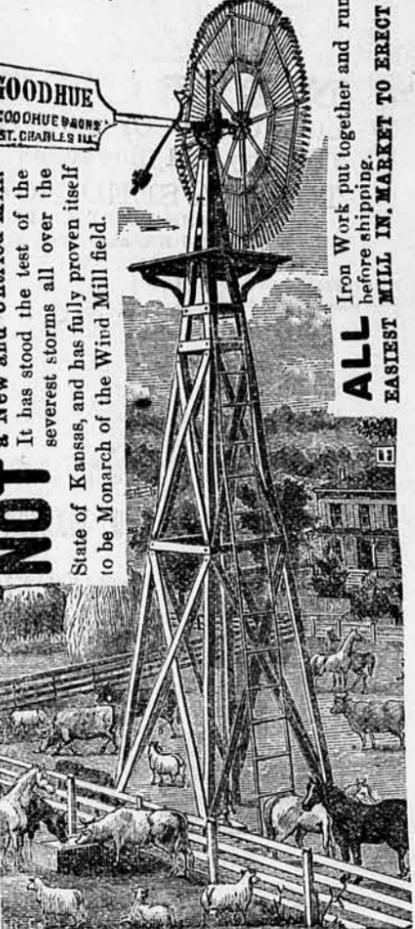
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