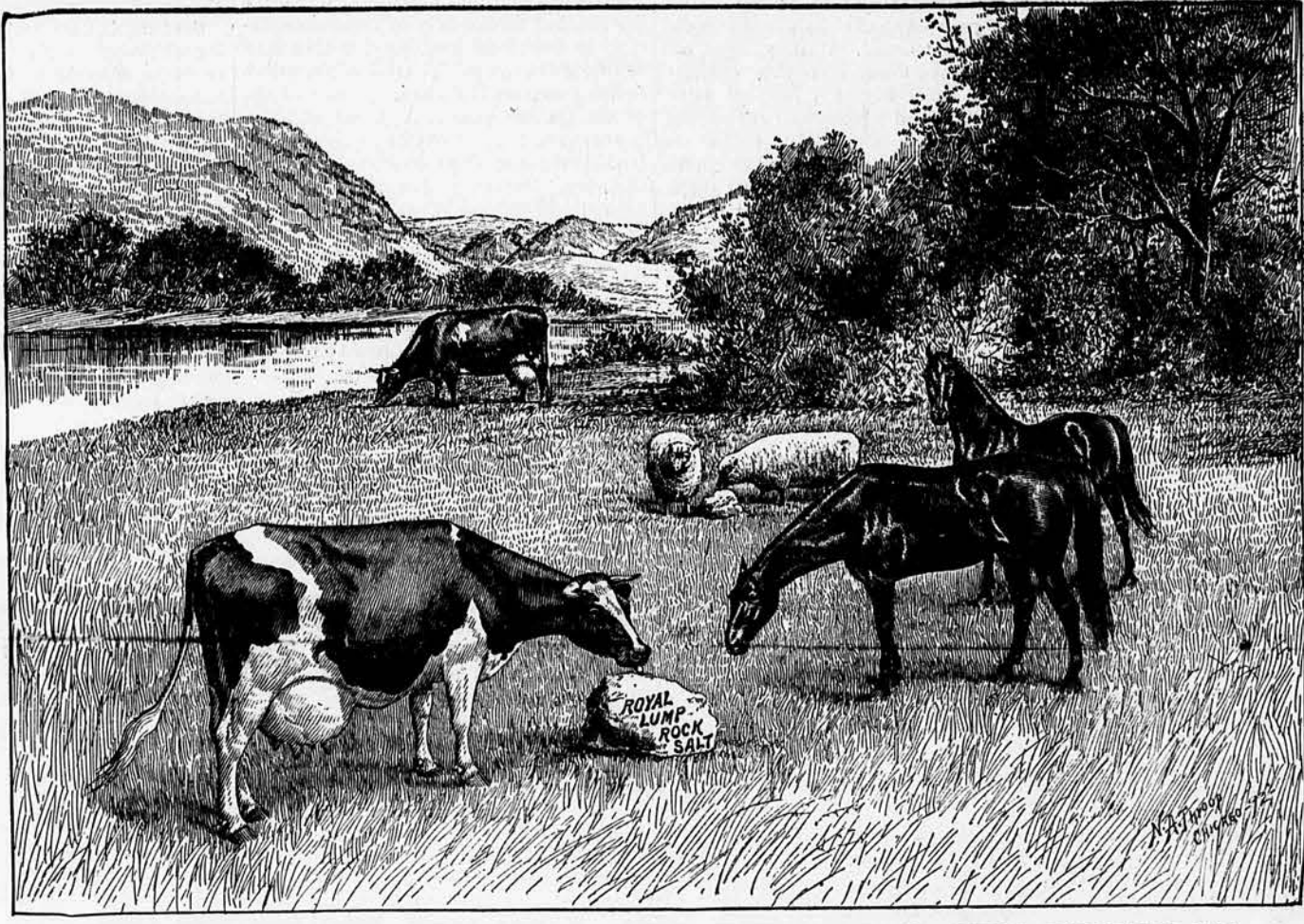


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BREEDERS' DIRECTORY.

Cards of four lines or less will be inserted in the Breeders' Directory for \$15.00 per year, or \$8.00 for six months; each additional line, \$2.50 per year. A copy of the paper will be sent to the advertiser during the continuance of the card.

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HEISEL & BRYANT, Carbondale, Kas., importers and breeders of Clydesdales, Percherons, Royal Belgians and German coach horses. The best to be found in America. Every one guaranteed a breeder. Terms that will command patronage.

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E. L. LEMENT, Abilene, Marshall Co., Iowa, breeder of Poland-China swine and Short-horn cattle. Only good pigs shipped. Prices reasonable.

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ASHLAND STOCK FARM HERD OF THOROUGHbred Poland-China hogs, contains animals of the most noted blood that Ohio, Indiana and Illinois contains. Stock of both sexes for sale sired by Bayard No. 4693 S., assisted by two other boars. Inspection of herd and correspondence solicited. M. C. Vansell, Muscotah, Atchison Co., Kas.

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TOPEKA HERD OF LARGE BERKSHIRES.—Extra one and two-year-old sows, and young boars ready to use. Write. H. B. COWLES, Topeka, Kas.



W. W. WALTMIRE, Carbondale, Kas., breeder of improved Chester White swine and Short-horn cattle. Stock for sale. Correspondence invited.



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REGISTERED BERKSHIRES.—I will sell pigs, either sex, from my best show sows. Write for particulars. Chas. Ernest, Fostoria, Ohio.

(Continued on page 16.)

KC BAKING POWDER.

25 OZS. FOR 25 C.

ABSOLUTELY PURE. JUST TRY IT.

F. F. JACQUES & CO., MANUFACTURERS, KANSAS CITY, MO.

The Stock Interest.

Stockmen, Make Ready.

To those who are watching live stock matters closely, it is apparent that indications are much more encouraging for a permanent improvement from a business point of view. For some time there has been a gradual approximation in this direction that gives assurance of substantial promise. Step by step the trend of events indicating better prospects have occurred. First it was sheep, and now we can appreciate the improvement of the swine industry, as well as improved conditions and prospects for cattle.

Notwithstanding the severity of the live stock depression, there should be much valuable experience gained, if but little cash realized, that may be beneficial and useful hereafter. Let us not forget the useful lessons learned, but utilize them for present and future advantage.

If stockmen will observe the essentials and carefully guard against extravagance or false economy, they will surely realize in the season of prosperity ahead enough to compensate past losses. Make ready now.

The Cure of Lumpy-Jaw.

Cattlemen everywhere will hail with gladness the result of the recent experiments made by Dr. Victor F. Norgaard, an agent of the United States Bureau of Animal Industry, and one of the inspectors at the Union stock yards of Chicago, who has long entertained the idea that lumpy-jaw could be cured by constitutional treatment.

A test case was made with an animal condemned to go to the tank, and after treatment was then slaughtered and no trace of actinomycosis was found after the most rigid *post mortem* examination.

Cattlemen have reason for great encouragement from this important experiment, and it is hoped that the United States Department of Agriculture will give this matter special attention and thereby save vast sums of money to the owners of cattle.

This experiment is so far in accord with the general belief of stockmen that this disease was not nearly so bad as certain officials had tried to make apparent, and the additional fact developed that it is probably a curable disease is still more encouraging to stockmen. No time should be lost in fully settling this matter in such a way that the public mind may be fully assured that lumpy-jaw can be eradicated when prevalent before the cattle go to market.

Bye for Pasture.

EDITOR KANSAS FARMER:—The KANSAS FARMER ought to be a good medium of communication with our new neighbors, for on a count 44 per cent. of them were Kansans.

In this newest Oklahoma, owing to the very late opening for this latitude, the crop raised on the sod will necessarily be very small. Anything that will supplement the other feed will be eagerly sought. We have never lived but three years in any place where there was any necessity of sowing rye for pasture, as the blue grass filled this want. But our limited experience with rye was so favorable that we know its value. It will have to be an experiment here, but we think the probabilities are largely in its favor, so we would advise liberal testings and as early sowing as the season will permit. W. J. Workman, of Clark county, Kansas, a very extensive farmer, says it makes the finest pasture in the world. His plan is, break in April and later thoroughly disc harrow, plant to Kaffir corn, head this first in August and then in October, and drill to rye with one-horse drill. The young rye and older forage from the Kaffir makes fine feed for his young stock.

We know there will be a great lack of machinery and we presume that there has been but very little of the sod disc harrowed, but it can be done yet where, as to a considerable extent, there has been no crop planted upon it. If a runner press-drill cannot be had, then we would rebreak deeper, thoroughly harrow with any kind of a harrow obtainable, in fact in any thorough manner to get the grain covered two inches. Better thoroughly prepare one acre for any kind of a crop than to "skim" over for three acres. Sow rye if possible to procure seed.

Winnview, Okla. J. M. RICE.

About Weaning Lambs.

"The happy-go-lucky way of letting ewes wean their lambs, or the lambs to wean themselves," says C. L. Gabrielson, in *Rural Life*, "is the best way to manage this part of the flockmaster's work. Those who raise early lambs find it necessary to wean the lambs in time to give the ewes a chance to recruit the system before the breeding season. Ewes carry their young five months, and in order to have January, February or March lambs, the coupling season must begin in August, September or October, and two months is none too long to prepare the ewe for this event—after being suckled by one or more lambs.

"At weaning time the ewes should be confined to a scanty pasture or put on dry feed until danger from garget has passed. The generous milkers should be stripped a few times, and if their udders be anointed with a mixture of lard and camphor, milk will soon cease to form.

"At this time the lambs should be securely separated so that habits of breachiness are not learned. If they have not already learned to eat grain they will soon come to it, especially if a few old ewes, that perhaps need a bit of extra attention, or such as have late lambs which are hardly fit to wean, are put with the lambs. Any kind of grain that they will relish may safely be given. Let the food, whatever it is, be fresh and not permitted to stand around after being nosed and mused about. Arrange the feeding places so that the feet must be kept out. Provide drink and salt in abundance.

"Now if a meadow, from which a crop of clover or clover and timothy hay has been harvested, is accessible to the lambs, then will they be 'in clover' indeed. With the low price of wire as an inducement, flockmasters should bestir themselves to get the 'golden hoof' of sheep into their fields. The corn fields offer great attractions to lambs and the damage they do to corn is slight compared to the benefit to the land and crop, by reason of weeds killed. Remember that early maturity, which is now so much sought after in all kinds of stock, can only be reached by animals whose owners supply the necessary conditions."

Swineherd Gleanings.

Never allow a diseased hog to come on the farm.

Free access to salt at all times is a good idea for the swine herd.

A little turpentine given occasionally in the slop is good for hogs.

Avoid fattening the boar. Give him food that forms bone and muscle.

The curl in the pig's tail indicates health and thrift. Keep your eye on the indicator.

Under average conditions slops should not be kept standing longer than ten hours before feeding it out.

To secure the best results from an early-maturing breed, the pigs must be fed something in the manner used to establish early maturity.

Pigs should be taught to eat before weaning them, as it is easy to stunt their growth. They must be kept growing in order to insure early maturity of good marketable hogs.

The Chinese are ahead of the world in the preparation of roast pork for the table. After it has come out of the oven it is hung up in the smoke of various aromatic herbs, which give it a delicious flavor and robs it of the porky taste which is offensive to some palates.

Good oats are far preferable to corn for pregnant sows, says one of the most successful swine-breeders and feeders in the West. Some of the hog men of the Ohio valley would think a man was losing his mind if he fed his hogs oats. Oats form the bone and muscle, hence their value for prospective mothers and growing pigs.

The one great important fact in the pig's life to make him of value is to start him right. It is astonishing how little value some farmers attach to a litter of pigs. They let the sow hustle for herself at this important time. If she does well they think they are fortunate; if not, they are unlucky. They seemingly do not attach any importance to the fact that the sow has been a costly creature for four months before farrowing, and if the pigs are lost the cost is a dead loss. Every good hog-raiser well knows when to expect the pigs,

and will be ready for them, by giving the sow the best quarters at his command. It is the careless fellow that never looks for them till he sees them.

What a Horse Can Do.

"A horse will travel 400 yards in four and one-half minutes at a walk, 400 yards in two minutes in a trot, 400 yards in one minute at a gallop," says the *Humane World*. "The usual work of a horse is taken at 22,500 pounds raised one foot per minute for eight hours per day. A horse will carry 250 pounds twenty-five miles per day of eight hours. An average draft horse will draw 1,600 pounds twenty-three miles per day on a level road, weight of wagon included. The average weight of a horse is 1,000 pounds; his strength is equivalent to that of five men. In a horse-mill moving at three feet per second, track twenty-five feet in diameter, he exerts with the machine the power of four and one-half horses. The greatest amount a horse can pull in a horizontal line is 900 pounds, but he can only do this momentarily; in continued exertion probably half of this is the limit. He attains his growth in five years, will live twenty-five and averages sixteen years. A horse will live twenty-five days on water without solid food, seventeen days without eating or drinking, but only five days on food without drinking. A cart drawn by a horse over an ordinary road will travel 1.1 miles per hour of trip. A four-horse team will haul from twenty-five to thirty-six cubic feet of limestone at each load. The time expended in loading, unloading, etc., including delays, averages thirty-five minutes per trip. The cost of loading and unloading a cart using labor is \$1.25 per day and a horse 75 cents is 25 cents a perch—24 75 cubic feet. On metal rails a horse can draw one and two-thirds as much as on asphalt pavement, three and one-third times as much as on good Belgian blocks, five times as much as on good cobble stone, twenty times as much as on good earth road, forty times as much as on sand. A modern compilation of engineering maxims states that a horse can drag, as compared with what he can carry on his back, in the following proportions: On the worst earthen road, three times; on a good macadam road, nine; on plank, twenty-five; on a stone trackway, thirty-three, and on a good railway, fifty-four times as much."

"Hildebound" is a disease that occurs often with the horse. The animal as a rule is always hungry and thin, the skin sticking to the ribs, fitted to the bones almost as tight as a drum. The disease is caused generally by poor feed or by the animal being a greedy feeder and not digesting its food. A farmer who feeds poor, smutty feed, and not very often, will get his horse in the habit of plunging his head into the manger and gulping food as if he was going to catch a train. In a little while the horse looks thin and does not act as lively as usual, and the owner doses him with condition powders, but without avail, and it is not long before his horse is run down.

"Within the past few weeks the demand for the heavier grades of steers has become materially lessened. A decided preference is being shown for the 1,100 to 1,250 pound animal of suitable quality, with the result that the steer of weight has suffered neglect, and the inevitable outcome has been lower values for this class," says *Live Stock Report*. "They are practically a drag on the market, and unless of fine form and quality, they are obliged to be disposed of at a price discouragingly low to the feeder. In fact, the expense of feeding in order to make the extra pounds is a direct loss, as are also the time and labor expended, while prices at the market are steadily working lower. Heavy grades of steers are to-day 15 and 25 cents per 100 pounds lower than a week ago, while the light and medium weight steers are fully steady. Quality is preferred to quantity; the fact becomes more apparent each day."

An Appeal for Mercy.

If you have any regard for your physical welfare, have mercy on your bowels, cease deluging them with drenching purgatives and relax them without pain with Hostetter's Stomach Bitters. Subdue with it, too, malarial and liver complaints, kidney and rheumatic ailments, dyspepsia and nervousness.

Large as a Dollar

Were the scrofula sores on my poor little boy, sickening and disgusting. They were especially severe on his legs, back of his ears and on his head. His hair was so matted that combing was sometimes impossible. His legs were so bad that sometimes he could not sit down, and when he tried to walk his legs would crack open and the blood start. Physicians did not effect a cure. I decided to give him Hood's Sarsaparilla. In two weeks the sores commenced to heal up; the scales came off and all over his body new and healthy flesh and skin formed. When he had taken two bottles of



Jos. Ruby.

Hood's Sarsaparilla
he was entirely free from sores." HARRY K. RUBY, Box 356, Columbia, Pennsylvania.

HOOD'S PILLS are a mild, gentle, painless, safe and efficient cathartic. Always reliable. 25c.

Prof. J. McLain Smith gave the following wholesome advice to the agricultural students of Ohio University: "Success in breeding owes half its results to success in feeding. It is useless to attempt the improvement of our domestic animals by greater care and skill in breeding, unless, at the same time, we improve all round. It is folly to spend money for a choicely-bred animal, possessing in an eminent degree the form and qualities desired, unless we afford its offspring the conditions necessary to develop those qualities. If we aim to winter our calves at a straw stack, and allow them to pick a living in summer along the roadside, it is not likely we can improve much on our native cows. In breeding know precisely what you want. In cattle whether milk, butter or beef, or all in somewhat less degree; in horses speed, or style, or strength; in sheep wool or mutton, or both. It is essential also to know something of the various improved breeds, their characteristics and their tendencies, their strength and their weakness. Then select as your foundation stock, or if it is proposed to breed up from nature, cows, or common mares, select as the head of your herd an animal in which the qualities you seek are rare characteristics, or at least strong family traits."

"The number of fat cattle being shipped from Texas points north and west, and the favorable prices received for such, is one of the hopeful signs of the times," says the *Texas Farm Ranch*. "This is little more than the beginning of a revolution in the system of farming so long followed wherever cotton is grown, and which will, when thoroughly established, bring more general prosperity to Texas than our farmers have dreamed of for several years. Stock improvement and feed farming, pulling on the same doubletree, will make the wheels to turn and the load to get there. There is no reason apparent why Texas should not raise as fine horses as Kentucky, as fine milch cows as Wisconsin, as fine bees as Iowa, as fine hogs as Kansas, and as fine sheep as Vermont (used to). All these, on account of fertility of soil, and mildness of climate, can be raised at less cost in Texas than anywhere further north, and consequently at greater profit. Horse breeders are becoming numerous, and improvement in this line of stock is reaching the farms and the conestoga and plug are disappearing from the scene. The improvement in hogs, both in number and quality, has been great within the last three years, and will be greater in the future, as farmers turn their attention more and more to feed crops. Compared with other Southern States Texas is decidedly prosperous. Every well informed person knows that at the present time Texas farmers, and Texas people generally, are more prosperous than those of any other cotton-growing State. The croaking of the dissatisfied cannot change the fact, and the prospect was never better than now."

Men That Jump

at conclusions, are generally "off their base." Because there are numberless patent medicines of questionable value, it doesn't follow that all are worthless. Don't class Dr. Sage's Catarrh Remedy with the usual run of such remedies. It is way above and beyond them! It is doing what others fail to do! It is curing the worst cases of Chronic Nasal Catarrh. If you doubt it, try it. If you make a thorough trial, you'll be cured. \$500 forfeit for an incurable case. This offer, by World's Dispensary Medical Association, Buffalo, N. Y. At all druggists; 50 cents.

Agricultural Matters.

THE CEREALS.

BY PROF. A. E. BLOUNT.

All over the face of the globe, wherever vegetation grows at all, the grasses, which are of the greatest importance and value to man, are found scattered, each genus and species in those sections and latitudes to which they are best adapted.

From them directly and indirectly man derives all his food, and, without them, he could exist hardly in any civilized condition. The essential elements of his whole physical being are contained in them.

There are many thousand species, all differing in habits, characteristics and quality. They necessarily differ to suit the different animals that feed upon them. Among them are found a class which are distinguished from the rest in having as their essential parts seeds farinaceous and good for food. These are called *Cereals*, because of their edible grain and from Ceres, the goddess of corn and tillage. In this discussion only five will be noticed, viz.: Wheat, corn, oats, barley and rye.

WHEAT.

Wheat-raising is the most prominent feature in farming in nearly all sections and countries where it can be raised at all. Its value as a food gives it a preference over all others and its adaptation to soils and climates makes it the most valuable of all.

For fifty years the acreage has steadily increased, the methods of its culture greatly improved and the best varieties used for seed. In its culture but few difficulties are encountered in most States and countries. It seldom fails as a general crop. Generally it is remunerative. In some sections, however, noxious insects, such as the fly, midge, weevil and chinch bug, and a few vegetable fungi, such as smut, rust and mildew, have so interfered with its culture as to make it unprofitable.

In arid regions, where water is artificially applied to the growing crops when they need it and where the rainfall is never in excess, the farmer, after his seeds germinate, has the making of them apparently in his own hands. All he need do is to cultivate and apply the water at the right time, and not wait, as is the case elsewhere, for rain or dry weather.

IMPORTANCE OF THE WHEAT CROP.

For human food wheat outranks all the other cereals. Its value for nourishing aliment exceeds all other vegetable products. The amount of wheat produced last year in the United States was 500,000,000 bushels valued at \$350,000,000. More than 50 per cent. of it was shipped out of the counties in which it was raised, the remainder being used for seed and domestic purposes. In a mechanical way the cultivation of 40,000,000 acres that produced the above amount necessitated the employment of a million or more men and teams, as many implements and half as many mills and operatives to prepare it for the market—all of which make wheat of the greatest importance. The manipulation of this cereal from the time it is put into the ground to the time it comes on the table in the shape of food, gives work to a fiftieth of our entire population, and if the workmen on the implements for wheat culture and wheat preparation be included the number would be greatly increased.

HISTORY OF THE WHEAT PLANT.

All history points to the fact that wheat is of Asiatic origin. Strabo and other ancient writers assert that it was found growing spontaneously in that country and in India. Egypt claims it as one of the important products of the Nile from the earliest dawn of civilization—a fact clearly proven by the engravings on the tombs at Thebes, two

centuries B. C. Sicily claims it to be indigenous to her soil—more perhaps because the soil is so well adapted to its successful growth. One thing is certain—it is found and has been known and cultivated as the most important and valuable cereal in all civilized countries from time immemorial, and has not anywhere, and by no one, ever been found growing wild. Some claim that it was originally developed by cultivation from the *Egilops ovata*, a rough coarse wild grass of Mediterranean origin; and others, that it was evolved from the lily, the proof of which is, that both the lily root and wheat grain are farinaceous, and the third prominence on the small end of the wheat grain shows the missing pistil of the lily.

CLASSIFICATION OF WHEATS.

Triticum vulgare, common wheat, is defined as a botanical species and includes all known varieties. Linnæus divided wheat into two distinct species, viz.: *Triticum hybernum*, winter wheat, and *Triticum aestivum*, spring wheat, while other botanists classify the beardless as *T. muticum*, hornless, with ear compact, smooth, without awns, and straw hollow.

The bearded as *T. barbatum*, with beards or awns, ears compact and loose, palæ having long spiny awns.

The pollard as *T. turgidum*, distended ear more or less hairy and spreading, palæ with long awns, grain coarse, hard and thickly set on rachis.

The Polish as *T. polonicum*, so named from the country where it was originally grown, ear very long, nearly smooth, with very long awns and remarkably long, leafy chaff, grains few, long, narrow and clear amber in color. This wheat is often called rye, which it very much resembles in growth and habits.

The African as *T. durum*, hard, ear more or less hairy, small and close, palæ with very long white and black awns, grain hard, three cornered, bright and glassy, straw solid next to the head, and very wiry. The African wheats are very difficult to mill owing to their very flinty nature. They are grown extensively in Italy and the islands south of Europe and used in vermicelli and macaroni.

The mummy as *T. compositum*, made of many parts, ears fan-like, composed of many supplementary ears branching on either side of the common rachis. This wheat is known by several names: Egyptian, Seven-headed, Many-spiked, Wild Goose, and Reed, from its great strength of straw. It is the celebrated wheat that was found in the tombs of the eighteenth dynasty, B. C. 1822 to 1476. It is remarkably prolific, a single grain making over a hundred stalks whose heads produce on an average of 120 kernels. It is not a good milling variety on account of not "flouring" well.

There are some other valuable plants belonging to this genus which are used for food, viz.:

Triticum dicoccum, double grain, the larger spelt; ear very long and loose, shiny, two and three grains in each spikelet, triangular in shape, reddish and glassy, chaff adheres to the grain like barley. This grain is used in the mountainous regions of Europe and Asia, Russia and India. It makes the finest of pastry.

Triticum monococcum, St. Peter's corn, single grain, ears three inches long, spikelets three-flowered, two of which are sterile, hence called "one-grained wheat." The ears are smooth, very white and glassy, and bitter, seed flat, both ends pointed, glassy and flinty, remaining in the chaff when threshed.

Triticum amyleum, Emmer or amel corn, fine meal grain, ear medium in length, each spikelet having two grains broadly furrowed and pointed at both ends, grayish red and glassy. This grain is grown extensively in the Alpine regions for bread and for food for cattle.

The *T. caninum*, dog wheat; *T. Sati-*

vum, sown wheat, and *T. cristatum*, club wheat, belong to the *vulgare*, but are not sufficiently defined to be classed separately.

Since the time of Linnæus all kinds of wheats have proved to be mere varieties instead of defined species, although early monographic writers on wheat generally arranged the classification so as to comprise seven different species.

The winter and spring wheats are now interchangeable, the former being easily converted into the latter, and the latter into the former. Another classification may be made with reference to the characteristics to assist in their arrangement, as follows: White, red and velvet chaff; smooth and bearded ears; white, red and amber grain; hard and soft grain. This classification is by no means permanent or satisfactory except in relation to the smooth and bearded ears—they are always the same everywhere, and in all seasons—but the other characteristics are subject to the influences of soil, climate and methods of cultivation in so marked a degree that they are not alike in any two sections or States, or even seasons in the same region. In arid regions the chaff, straw and grain are much lighter in color, the grain much more flinty, the chaff more fragile, especially on the bearded varieties.

The distinctive characteristics of the genus *Triticum* are terminal inflorescence, two-valved with nearly equal glumes, alternate two-rowed, many-flowered spikelets, transverse with the edges of the florets towards the rachis; and two palæ, surrounding the seed, the external or lower one pointed, and the internal or upper one cleft at the point. The rachis jointed, the spikelets rising one above another on each side of it, constituting the spike, ear or head. The spikelets are closely imbricated, each with two or more flowers and a terminal barren one. Besides the glumes and palæ that clothe the grain there are two lodicules or scales lying next to the stamens clasping each embryo grain at the base. Mounted on this embryo grain three stamens rise and two pistils beside them. The anthers ascend on slender filaments and when they reach the glumes they are ruptured—one at a time—and the pollen falls back upon the feathery pistils below, fecundating them. Only one anther escapes at a time and when out of the glumes it is perfectly impotent and cannot fertilize a neighboring glume or head of wheat, as some erroneously suppose. Being bi-sexual and close fertilizing plants, wheats have not, so far as observed, intermixed in a single instance, although having been grown side by side for years. I cannot see how a natural crossing or mixing of varieties can be effected unless by the agency of very small insects, inasmuch as both staminate and pistillate flowers are so closely closed against all ingress of vital and effective pollen.

(To be Continued.)

Turnips.

EDITOR KANSAS FARMER:—Turnips are generally a catch crop, to be sown if other crops fail, otherwise not. This is especially true of a large portion of the West. From what we read and our English neighbors tell us, the reverse is true as to the sowing by the farmers on the other side of the Atlantic. Especially do the sheep farmers raise them in large quantities. There they are a staple crop, the yield being of such large proportions as to seem incredible to us of the drier Western country. We remember in boyhood days in one of the Eastern States that rye, buckwheat and turnips were called the poor man's crop, as a failure in either was almost unknown. Turnips require warm weather to make the necessary quick growth. This we have in abundance in the West, but we often lack the other element, plenty of moist-

ure. To be of good flavor and attain to paying size, there must be these two essentials. It very often is the case that there are light showers at the sowing season, which ranges from July 15 to September 1. The seed is sown but there is not enough moisture to germinate it, or if germinating then the growth is so slow that insects prey upon the young plants and the crop is largely a failure. Generally we prefer to sow in what is considered the latter part of the season. The probabilities are for greater rainfall. We farmed two seasons in Kansas and we had some vacant ground where the chinch bug had taken the corn. We plowed the ground in August and thoroughly harrowed it and waited for rain. It came about the first of September. The seed was sown at the rate of a pound to the acre and harrowed in. A neighbor told us we would never see any plants. But we did, and the heaviest crop we ever raised.

Now this newest Oklahoma was opened two months too late for successful crops of any kind this year, though many things have done remarkably well with such late planting, and three-year-old Oklahoma is full of wheat and oats, and in some sections corn promises well, but here we would advise sowing turnips largely. They will be a good supplement to other supplies, not only for stock but for the household. The sod here is very easily torn up with the ordinary or disc harrow. Then let the ground be thoroughly harrowed before sowing, and if in proper condition you need not be afraid to use the smoothing harrow afterward. We shall sow late rather than early, but in this new farming section shall carefully note results of different sowings.

As to varieties, the quick-growing flat varieties are likely to be better for this section than the deeper-rooted varieties, which yield so largely in moister climates.

J. M. RICE.

Winnview, Okla.

Forests and the Rainfall.

As the hot days of July approach, every farmer in the irrigated belt realizes the necessity of more water for his irrigating schemes. Every old-timer in Colorado realizes that the streams of this State do not begin to compare with those of thirty years ago, and that the diminishment is getting more pronounced every year. The forest fires and the woodman's axe have done much to bring about this undesirable state of things. The benefits of forests lie not so much in their rain-producing power as in their moisture-holding capacity. When mountain sides are well timbered, snows lodge there and are held fast by the brush, allowing of their slow melting, so that every bit of it finds its way into the earth, to percolate through soil and rock to the valleys below, and when rains come the same thing occurs.

But let the timber be cut away, and what is the result? Snows rest until the first warm day or rain comes, when they melt quickly, rushing down from the top to the bottom of the mountain and, disappearing in a few days, leave nothing for the wants of the valley in the days to come. Every farmer understands exactly how it works, as exemplified in his hilly fields. His plowed hillsides pour the water down in torrents during heavy rains. None of it soaks in worth speaking of. But let his hillside be in grass, and what a difference there is! Nearly every drop of water is held where it falls, but a very small proportion of it coming directly to the bottom. In this way wooded hillsides are of vast benefit to farmers, and especially so in districts where rains in summer are not frequent. In our mountain districts which have been cleared of trees, the universal testimony is that parched fields in summer are more frequent than they were but not that the rainfall is less.

That trees produce rain or that the evaporation from the foliage makes the air more humid than before, must be imaginary. An acre of prairie land in an uncultivated state is as full of herbage as it can be. In fact, acre for acre, there is as much vegetation on the uncultivated as on the cultivated one. Why should the foliage of trees be supposed to evaporate more than the foliage of grasses, or other low growing plant? We think the true explanation is the one given above, which is, that trees do not produce rain, but they do hold what falls in store, to be drawn on later when dry times demand it. Destruction of forests destroys the reservoirs for the supplying of water for the summer crops.—*Field and Farm.*

Sick-Headache? BEECHAM'S PILLS will relieve.

Alfiance Department.

AFTER LOWER RATES.

The agricultural implement dealers of Kansas are asking for lower freight rates on the particular kind of goods they handle.

At the January meeting of the association this matter was taken up, and through their committee on transportation, they have been at work at it ever since.

Much time was spent by the implement men in getting ready the statistics to sustain their application, and an invitation to appear before the committee was patiently awaited.

While waiting, four or five visits were paid to the office of the chairman of the Trans-Missouri to learn when the case would come up.

"We now wish to advise that at our last meeting the committee to which this matter has been referred made its report back to the association that sufficient reason had not been advanced for making any reduction in the rates named on the commodity in question, and the report of the committee was unanimously adopted."

This action was taken without ever having invited or given the implement association an opportunity to appear before them and offer their arguments in support of their application.

By request of a member of the Trans-Missouri Association, who seems to have been favorably inclined to grant the reduction, publication of the matter was deferred and an application for a reconsideration was made of the Trans-Missouri, which was granted.

This hearing was had on June 8, and on the 11th they again refused to concede the reduction, and in the Kansas City Journal of the 12th, gave forth as their reason for the refusal that:

"They were giving a more favorable grain rate to the people of Kansas than the people of Iowa or Illinois received, and 1/2 of a cent on grain amounted to more than the reduction asked by the implement association, or than they could give, which would not amount to more than \$10 per car."

They admitted in their answer that the reasons advanced were sufficient, but claimed exemption from conceding it because they were favoring Kansas people in another way.

As it was believed that their answer was only a subterfuge, the statistics of the grain rates paid by the citizens of Iowa, Illinois and Kansas were obtained for comparison, and show conclusively that their answer was intended to mislead.

This implement rate matter is purely a State question and does not come under the Inter-State law. The citizens of Missouri, Iowa and Illinois have done so, and the people can and will do so when the next Legislature meets, and we venture the prediction that no man can be elected Governor, Senator or Representative who does not pledge himself to vote and ap-

prove such laws as will secure the people of Kansas rates equally as favorable as are charged the people of Missouri, Iowa and Illinois for the same service.

To inform the people of Kansas how much more they are paying for the same service than is charged the people of the States named the following statistics are given. It will also disclose to the people of Kansas how much this agricultural implement tariff in use in Kansas since 1887 has discriminated between the citizens of our own State.

It shows that Kansas is paying from 50 to 300 per cent. more for the same service than are the citizens of these other States.

CARLOAD RATES ON IMPLEMENTS.

Table with columns: STATIONS, Mileage, Kansas, Missouri, Illinois, Iowa. Rows include Abilene, Dodge City, Garden City, Great Bend, Larned, La Crosse, Lindsborg, Lincoln Center, Lyons, Olathe, Osage City, Salina, Scott City, Wellington, Wichita.

In support of our application for as low a rate as the States named in this comparison, we showed that Kansas had reached a position of traffic importance greater than the States of Missouri or Illinois, and equal, if not superior, to that of Iowa, by the following statistics:

Table showing acreage in Illinois, Iowa, Missouri, and Kansas in 1891 for Wheat, Corn, and Oats. Columns include Acres and Bushels.

The acreage almost equaling Illinois, greater than Missouri, but less than Iowa's. We estimated that the wheat crop takes a proportion of implement tonnage in amount equal to three to one of a corn crop to produce it, because of the heavy machinery used, such as drills, binders, headers and steam threshing outfits.

This being the case, Kansas raised 1,930,912 acres of wheat in excess of Iowa, 1,916,550 acres in excess of Illinois, and 1,795,363 acres in excess of Missouri. Applying the ratio named, the excess of wheat acreage equals in amount of implement tonnage necessary to produce it, an additional corn acreage of 3,590,726 acres in Iowa, 3,590,726 acres in Missouri and 3,833,100 acres in Illinois, placing Kansas in amount of implement tonnage necessary to produce her crops on an equality with Iowa, and largely exceeding either the States of Illinois or Missouri, in amount of revenue derived from the implement traffic to her lines of railroad, and effectually exploding the claims of the railroads that the higher charges were because of the lesser tonnage.

Let no railroad man ever get up in Kansas again and say that they cannot afford to give Kansas equally as low a rate as they do in the States compared with because the amount of tonnage does not justify it. The product of Kansas last year blocked the lines of railroad 200 miles west of the Missouri river, and for relief some of them were compelled to refuse shipments. It became a common practice for shippers to fee the train men, as much as \$5 per car being paid to secure an ad-

vantage in procuring cars upon the arrival of trains at the stations, and the trouble and disputes arising from this practice became so great at some stations as to cause the removal and transfer of the agents permitting this practice resulting to the advantage of some shippers ever others. It is a fact that at the present time, the close of the crop year of 1891, they are taxed to their utmost to furnish cars, and if the wheat crop of this year matures without accident every railroad in Kansas will be blocked and unable to furnish cars before the season has fairly opened.

Enough has been shown to refute absolutely the claim that the magnitude of the business does not justify Kansas in demanding the very lowest rates made anywhere. Now as to the claim of the Trans-Missouri Association, that they are making a more favorable rate on grain in Kansas than the people of Iowa and Illinois pay. The statistics of the grain rate to the 140 stations in Kansas previously named have been obtained, but to economize space and compress this article as much as possible, fifteen stations from different parts of the State will only be given; sufficient, however, to show that the people of Kansas have not a more favorable grain rate, but on the contrary are paying a higher rate, and are justified in demanding an immediate reduction of this rate also. But the figures will tell their own story:

RATES ON WHEAT.

Table with columns: STATIONS, Mileage, Local or Missouri river rate on wheat, Through, or Mississippi river rate, Proportion of 1 through rate kept by Kansas roads for haul west of Missouri river, Iowa rate for same distance, Illinois rate for same distance. Rows include Abilene, Olathe, Wichita, Great Bend, Dodge City, Garden City, Salina, Osage City, La Crosse, Larned, Scott City, Lincoln Center, Lindsborg, Wellington, Lyons.

A comparison of the grain rate shows the same discrimination between stations in Kansas that are shown in the implement rates. * * * Examples could be given indefinitely, but enough have been shown to absolutely refute the claim of the Trans-Missouri Association that the Kansas farmers have been favored by the grain rate or that they have had any other consideration except the privilege of paying higher rates where their products are greatest, and higher rates from all points in the State than do the farmers of Iowa or Illinois. * * * As compared with Iowa and Illinois, their average rate is 14.25 cents per 100 pounds; Iowa's for same distance, 11.88; Illinois, 12.31; showing that they pay 2.37 cents per 100 pounds more than Iowa, and 1.94 cents more than Illinois for the same service.

To return to the implement question, we showed in our application for a reduction in rates that a large proportion of the implement tonnage was heavy threshing machinery, and was transported on flat cars, the cheapest rolling-stock used by the railroads, yet they make no concessions because of this fact, but charge the people of Kansas the same high rate as they do if it were handled in a high-grade furniture car. Kansas being so largely a wheat State, a much larger proportion of her implement tonnage is of this character than in either of the States with which comparison has been made, and thereby makes the discrimination that much greater. We also showed that there had been no material change in classification and none in rate since 1887; that the tonnage had much more than doubled in that time; that there had been a radical change of material and construction in agricultural implements since that time; that then they were largely constructed of wood, were bulky in proportion to their weight, and were more liable to break or damage in transit than were the implements as now made, being almost entirely constructed of steel and iron, compact and heavy in proportion to bulk, and that this change itself had been so

radical and great as to call for a change in the classification and rate.

We showed that the actual risk of damage in transit was comparatively nothing, not enough to enter into the calculation; one member of the implement association stating that in a business of nine years but one claim had been made and paid by the railroads, the claim being only for \$3.50.

We showed that the increase in acreage of new land brought into cultivation this year would amount to 800,000 or 900,000 acres, thereby increasing the implement tonnage to that extent.

We held that the time had come for a recognition of these changed conditions. That upon principles of business, justice and equity this should be done by the railroads themselves; upon the showing made and not compel the people to take matters into their own hands and wring justice and equity from their tenacious grasp, by an appeal to legislative action, or the commissioners of the State. That the people could appreciate a reduction that was not brought about by force, and as a pure business proposition we believe they could satisfy the people and save themselves money by an amicable adjustment of rates.

To all of which they replied, refusing the concession, and alleging as a reason a false statement of facts, viz.: Claiming that Kansas farmers had a more favorable grain rate and therefore they should be permitted to make it up on other lines.

They alleged that \$10 per car was as much as was asked or all that they could give. We claim that an equitable rate would save to the people of Kansas \$200,000 a year based upon the business of last year, and in support of that fact offer the following illustration: The implement rate to Abilene is 25 cents per 100 pounds in carloads. The Iowa rate is 13.52, a difference of 11 1/2 cents, amounting to \$27.60 on an average car of 24,000 pounds. The saving on a car to Wichita would be \$38.40; to Hutchinson, \$36.65; to Lyons, \$33.60; to Dodge City, \$31.60; to Arkansas City, \$46.80; to Troy, \$7.60; to Winfield and Wellington, \$44.70; to Fort Scott, \$19.20; to Ottawa and Topeka, \$10.80; to Independence, \$29.95; to El Dorado, \$35.45; to Osage City, \$20.65; to McPherson, \$39.40; to Caldwell, \$43.55; to Greensburg, \$42; to Emporia, \$30.25; to Minneapolis, \$27.40; to Newton, \$36; to Sterling, \$33.60; to Lawrence, \$6.25, and so we could go on, every station in the State paying its tribute to the railroads to the extent named over and above a just and equitable rate. To give a better idea of the gross amount of saving it would be to the people of Kansas the following illustration is given of the saving it would have been at one station in Kansas in 1891:

At Pratt during 1891 there were received 1,473,889 pounds of implements, wagons and buggies in carloads, amounting to sixty-one carloads. The rate from Missouri river points, distance 274 miles, is 36 cents. The Iowa rate for the same distance is 20 1/2 cents or 15 1/2 cents per 100 less. This would have saved the people of Pratt who bought the goods, \$2,269.20, if the rate had been the same as that of Iowa. There was also received at Pratt 734,944 pounds in less than carload lots, on which the local tariff of 72 cents per hundred was paid. In this application we asked that the less than carload rate shall not be more than 50 per cent. higher than the carload rate, and with a rate of 20 1/2 cents this would give a local rate of 31 cents, a saving in this one particular of 45 cents on each 100 pounds, amounting to \$3,316.25, or a total of \$5,585.45 at this one station in western Kansas. Multiply this all over Kansas, and every one must admit that our claim of \$200,000 saving is underestimated.

We offered as an especial reason why agricultural implement tonnage should be placed upon a different and special classification, that every plow, harrow, or implement of any kind shipped into Kansas, as soon as sold was immediately put to work turning up return traffic for shipment to market.

We say that the people of Kansas have paid an exorbitant price for all favors they may have received in the way of passes and are certainly under no obligations for anything in that line.

In conclusion, we believe enough has been shown to warrant calling a special session of the Legislature for immediate action to reduce the railroad tariffs in Kansas, before the new crops begin to

move, and we further believe if this cannot be done, that at least not a single man can or ought to be elected to the coming Legislature or for Governor who does not pledge himself to work for this readjustment.

The Western Retail Implement Dealers' Association, which is composed of influential citizens in nearly every county of the State, will work to that end, and until this result has been accomplished. For the accomplishment of this object of great good to Kansas, they ask and solicit the co-operation of all good citizens, and pledge their co-operation toward any and all efforts seeking this object.

H. C. TAYLOR,
Chairman Transportation Committee W.
R. I. D. Association.

Political Power of Railroads.

The Minnesota *Stock, Farm and Home* makes the following clear and forcible presentation of its views on this subject:

"The railroad is the population centralizer *par excellence*—by common consent acknowledged to be most unwholesome if not disastrous. It discriminates against small enterprises that large ones may be made larger; it tears down innumerable small private fortunes that a few large ones may be erected upon their ruins; it transcends its duties and obligations as a common carrier and undertakes to dictate how the private business affairs of citizens shall be conducted; in short, it exercises powers so despotic that they must not be tolerated, for if they are then this ceases to be a republic.

"Second, the political power of the railroad must be destroyed if this is to remain a government of the people. Debauching legislators, corrupting courts and controlling elections have been common with railroads for many years. Emboldened by custom and success in that line the railroad now enters the arenas where candidates for the Presidency are named and selects the men who are to stand for that high office. In a recent lengthy editorial the *Chicago Tribune*, a Republican journal of acknowledged orthodoxy regarding all the tenets of that party, the charge is made, clear, direct and explicit, that Chauncey Depew, the gifted lieutenant and affable purse-bearer of the Vanderbilts, went into the Minneapolis convention and purchased, for hard cash, the renomination of President Harrison. When a leading party paper makes such a charge outsiders must perforce believe it, especially as the charge stands without explicit denial.

"Turning to the Chicago convention, it is discovered that Democratic journals and men are preferring similar charges against Mr. Whitney, of New York, though the money he used was not the Vanderbilts', but that of the Standard Oil Company and other capitalistic combines and interests of analogous character, but so closely allied to the railroad that they may be reasonably regarded as members of the same family. So self-evident is the officiousness and power of railroads in making Presidents of the United States that certain outraged souls within the parties so controlled are forced to voice their protests, and make charges that it is puerile to deny, and that should inspire all good citizens with the gravest fears for the republic's safety. Here is a situation that cannot be ridiculed off the stage of human thought and action; this is not a 'clammy howl'; it exhibits a condition that must be speedily and radically changed, or else the republic is a 'barren idealty,' a whitened sepulcher! The issue is now fairly presented between government ownership of the railroads or railroad ownership of the government. The people, if not this year, soon will have, must have the courage to sign their verdict upon this question, and when signed it will be a righteous one."

The value of a good name was well exemplified the other day, when a man asked one of our druggists for a bottle of Sarsaparilla. "Whose?" inquired the clerk. "Whose?" why, Ayer's of course. Ye don't suppose I'm going to run any risks with Hannah, do ye?"

We Sell Live Stock.

Our cash sales for 1890 were \$1,904,199.38 total business exceeded two and one-half million dollars. Established since 1880. Market reports free and consignments solicited from stockmen, by ORFUT, ELMORE & COOPER, Room 14 Exchange Building, Kansas City Stock Yards.

The Family

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

Answers to Correspondents.

R. C. HARRIS, Bazaar, Kas.:—To answer your questions fully as you request would take up two entire pages of the *FARMER*, and we cannot devote so much space to any one or two subjects. But briefly, the effects of sunstroke are: First, phrenitis or acute inflammation of the meninges or the coverings of the brain. Second, heat exhaustion, where, without pain, the patient collapses almost as if struck by lightning and half or wholly paralyzed. Third, *thermic fever*—true sunstroke. Phrenitis is very rare. Thermic fever is characterized by intense fever, temperature running up to 108° or 109° with profound nervous depression, insensibility, convulsions, paralysis, asphyxia and death. Patients may recover from the first two phases, but almost never from genuine thermic fever, or true sunstroke. Sunstroke is almost never known in high altitudes and in mid-ocean. It seldom occurs on our open prairies or plains, where there is opportunity for a good breeze. It is most frequently found in cities, where walls and pavements collect and reflect the sun's heat and where many buildings prevent free circulation of air.

The secondary effects of overheating are legion. Inability to sweat or sweating like a deluge, obstinate constipation, terrific headaches, greatly aggravated by the sunshine, loss of memory, prolonged fever, lung disorders, great prostration. Epilepsy, general or local paralysis and insanity are among the more serious after effects.

Liquor drinking and habits of debauchery generally predispose to the disease.

As to hemorrhoids, there are two general varieties, external and internal. The external variety is characterized by from one to half a dozen lumps of varying sizes, just at the margin of the bowel and nearly always painful and sore. They sometimes burst open and bleed quite freely. The internal variety is seldom painful or sore, but do their mischief by reflex disorders which are very numerous. Headaches, backache, poor digestion, constipation or diarrhoea, sleeplessness, general nervousness, vertigo, and many other less prominent symptoms arise from internal piles. They often bleed. As to cures, they are about as numerous as leaves in a forest. There is an army of "pile doctors" going about like roaring lions seeking whom they may "cure." They mostly cure people of that rare affection known as "plethora of the pocket-book." They will cure you much quicker of piles in the pocket than those about the rectum.

The chief methods of treatment are by ligature—that is by tying a string around the lump and letting it die and slough off, by injections of carbolic acid, iodine or other caustic drugs, which many times produce violent inflammation and dangerous sloughs, by clamps and by surgical operation. Under the new antiseptic method of surgical treatment, much the best results are obtained. If intelligently done it makes a quick and sure cure. It is the most permanent cure obtainable. It is practically devoid of all danger. In a list of many hundreds of cases operated on by myself, I have never seen any ill results. Surgical excision never creates serious inflammation or dangerous and extensive sloughs to recover from. The patient often goes about his business in an hour, or a day, some in a week, and a few at a later time in very bad cases. Cases treated by ligature or clamp or injections seldom recover under four to eight weeks, and are quite likely to recover in a year or two.

SAVE THE CHILDREN.—During this hot weather especially, see to it that every bottle-fed child whose bowels are at all loose, has its milk scalded, and be sure and scald the bottle and nipple twice a day and keep them immersed in water containing a teaspoonful of soda, while not in use.

It is estimated that the life of humanity has gained 25 per cent. all the world over in the last fifty years. The lowest average that has been calculated is 23 years, which represents the life expectancy of the Sou-

This brings me to the horrid subject of bills, the second great drawback to the profession. I have been recently reminded of it by the receipt of some of those lithographed forms which are sent out as advertisements by medical stationers. This is the kind of thing: "To Jones Brompton, Esq.—Mr. John Caustic's fees for professional attendance during 1891, £0 0s 0d. With respectful compliments." Fancy an educated gentleman being even supposed to send out such a thing! But it has to be done, though not precisely in this form; and it is excessively distasteful in any form. It would not be so bad if people paid up quickly and cheerfully, and let one forget it; but a great many do not. Some ignore the transaction and don't pay at all; others write and ask for particulars; others say plainly they think the bill too high, and others, again, insinuate as much. I always reply to these people: "My dear sir, pray pay what you think proper," adding mentally, "and hang you for a scurvy fellow." I am not at all sure that the word-of-mouth transaction which consultants have to undergo is not quite as unpleasant. People have a way of showing that they expected to be asked

A WELL KNOWN REMEDY THAT H
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MUSTANG
THE UNIVERSAL
It penetrates the muscles, m
reaching the seat of disease.
wife, Farmer, Stock Raiser or

Cakes Without Eggs.

Observing housekeepers quickly learn that Dr. Price's Cream Baking Powder is far superior to other brands in the fact that they never fail to make the finest pastry, and if they wish to be economical they can dispense entirely with eggs and can use a less quantity of butter for shortening purposes. The advantage is not alone in the saving effected but in avoiding the trouble and frequently the great difficulty of securing eggs that are fresh. This is often a serious trouble.

Cakes of various kinds from the informal Griddle Cakes to the stately Bride Cake can be made with Price's Cream Baking Powder, which insures light, sweet and handsome cakes; or when used for Griddle Cakes to be eaten hot enables their production in the shortest space of time, always tender and delicious.

Dr. Price's is the only Baking Powder that contains the white of eggs. None so pure! None so wholesome!

Dr. Price's Cream Baking Powder is reported by all authorities as free from Ammonia, Alum, or any other adulterant. In fact, the purity of this ideal powder has never been questioned.

How to Make a herbarium.

The herbarium is a necessity if one would become a good botanist. We forget so easily that the results of one summer will be lost before the next, unless we can sometimes refer to our "collection."

Newspapers are good enough for pressing. Procure several, and tear them into sheets of uniform size. If you take the flower right from the box, its leaves will lie flat, and will almost arrange themselves. Place several thicknesses of newspapers between the plants; cover under and over with flat boards about two feet long, and press under a trunk or equally heavy weight. A separate press for small and delicate flowers can be made of old magazines under a pile of books. These must be looked at oftener than those in the big press, but every day until the juices of the plants are dried all the specimens should be transferred to clean and dry newspapers. The plants which retain their color best are those which are thoroughly dried in the shortest time. They may take twenty-four hours, and if "fleshy," a week, or even more. This may seem a crude way of drying specimens, but for a traveler, living in trunks, away from home, it is practicable, and therefore commendable.

Let the pages for the herbarium be of uniform size and quality. At any printing office white or manilla paper, cut into half sheets, can be obtained. The approved size is 16 $\frac{1}{2}$ inches by 11 $\frac{1}{4}$. Disregarding the fractions, 17 by 12 is a very convenient size. For strictly scientific purposes, one specimen only is allowable on each page. But for purposes of comparison, it is useful to lay two or even more species upon the same page. Fasten the stem and branches with short narrow gummed strips of paper. When the stem will not lie flat, tie it with a needle and double thread on the under side. Upon the right-hand lower corner write in ink the botanical (genus and species) and common

names of the flower, with the time and place of its gathering, and other bits of information. Especially note the color of the blossom, as it may have changed in drying. Red and yellow flowers retain their color best; white turns brown or black; blue and pink turn white.

Place the species belonging to one genus inside of covers of thick manilla paper. These "genus covers" should be labelled and grouped again in a portfolio or box under "Families." The private collector will then doubtless find his house too small. It certainly will not easily offer a closet or case large enough and suitable for his botanical collection. To the enthusiast, however, everything is possible.

All this may seem like taking a good deal of trouble, and it is; but it pays. It is the most fascinating kind of work. It possesses over needle work the distinct advantage of taking the student out of doors for many hours at a time. The collector cannot fail to exhibit the results of his summer's work with a pardonable pride. And admiring friends will say, perhaps, as one of mine did:

"Why, how busy you must have been! And how like a pretty picture those ferns are, held up to the light and looked at from the back!"—*Harper's Bazar*.

Would You Comfort an Invalid?

When hot applications are ordered, let them be hot, not warm.

Put your piety into your nursing as well as into your prayers.

Smooth off, with a fine file, the rough end of the glass drinking tube.

Let no drinks be brought in large tumblers or glasses; little ones are far more acceptable.

Use finest old linen, if linen at all, for bathing the mouth and lips; nothing is so grateful.

Make the most of the privilege of being near the suffering mortal who longs for your presence:

Raise the invalid's head by putting your hand under the upper pillow, and, with as much firmness as possible, lifting it.—*Good Housekeeping*.

A lady, whose hair came out with every combing, was induced to give Ayer's Hair Vigor a faithful trial. She did so, and not only was the loss of hair checked, but a new and vigorous growth soon succeeded that which had gone.

The Food of an Ancient People.

Plentifully scattered through the relic beds of Switzerland's lakes are fragmentary remnants of its ancient people's food. We learn that they were not cannibals, for amid a profusion of animal bones very few of the human species have been detected. The deposits of the earliest settlements prove that the inhabitants were ardent hunters, and then largely fed on the spoils of the chase. But in after ages, when farming occupations were followed to a greater extent, the flesh of tamed animals was chiefly eaten. The bones have mostly been split open, doubtless for the purpose of extracting the marrow.

Among the animals domesticated by the lake dwellers were the ox, the sheep, and the goat. Their stalls, like their masters' dwellings, were upon the water; and quantities of the litter provided for them have been found in the mud of the lakes. Moss, which has also been largely discovered, is thought to have formed the sleeping couches of the household. Numerous wild fruits, such as apples, pears, plums, raspberries, blackberries and nuts, were included in the vegetable diet of these Swiss aborigines, and the detection of apple parings testifies to a certain nicety in their cuisine. They cultivated the common cereals, wheat and barley; and flat round cakes have been disinterred, and also several stones, between which the grain was ground.—*The Gentleman's Magazine*.

Gallant Rufus Choate.

On a pretty girl saying to Rufus Choate, "I am very sad-you-see," he replied, "O, no; you belong to the old Jewish sect; you are very fair-I-see!"

Nothing adds so much to the beauty of a fair girl, as a clear, bright, healthy complexion, and to secure this pure blood is indispensable. So many of the so-called blood-purifiers sold to improve a rough, pimply, muddy skin, only drive the scrofulous humors from the surface to some internal vital organ, and disease and death is the inevitable result. On the contrary, Dr. Pierce's Golden Medical Discovery strikes directly at the root of the evil, by driving the impurities entirely out of the system, and with a fresh stream of pure blood flowing through the veins, nothing but the softest and fairest of complexion can result.

Nobody has any trouble about living a beautiful Christian life, who tries to do it one day at a time.

KANSAS FARMER.

ESTABLISHED IN 1868.

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Topeka, Kansas.A MEMBER OF THE
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All advertising intended for the current week should reach this office not later than Monday.
Every advertiser will receive a copy of the paper free during the publication of the advertisement.
Address all orders
KANSAS FARMER CO., Topeka, Kas.

The annual meeting of the Pennsylvania Settlers' Association of Kansas is to be held at the capitol on Wednesday and Thursday, August 24 and 25. Reduced rates of transportation have been secured.

The KANSAS FARMER is in receipt of the thirty-fourth annual report of the Missouri Horticultural Society. It is a volume of 400 pages and constitutes a valuable addition to horticultural literature.

Applications for territory are coming in rapidly from those who will become the paid representatives of the "old reliable" KANSAS FARMER. There is, however, considerable good territory untaken which will be awarded as rapidly as desirable persons apply. Write to Kansas Farmer Co., Topeka.

Hon. A. M. Garland, of the Home Market club, of Chicago, has been appointed Superintendent of the Sheep department of the World's Columbian Exposition. This is a very excellent appointment, next to the very excellent sheep-breeders who have been named for that place. It might have been worse.

It is becoming rather monotonous, this crediting all cranks to Kansas. It now appears that Bergman, who shot H. C. Frick, at Pittsburg, has set type in several Kansas printing offices. But we wish here and now to state, officially, that the cranks have all gone from Kansas and everybody now residing here is in his right mind.

The latest report as to the anti-option bill is that it will probably be referred to the Senate Committee on Finance, with instructions to report at the next session. The farmers of America should hold to a strict accountability any Senator who favors thus trifling with the suppression of gambling in farm products to the great detriment of farmers.

Late reports are to the effect that the wheat crop shortage of India and Australia are very serious. Just why such reports from Australia come at this season is not plain. That country is south of the equator and its harvest was probably over six months ago. Whether the report of its crop was obscured at the time it should have appeared and is made conspicuous now by some speculative interest is not apparent.

The horrors of the Russian famine which has made 20,000,000 people dependent upon charity for the necessities of life will never be fully told. Cool and conservative accounts of it now appearing in American magazines show that the distress cannot end for at least another twelve months. The Russian government will have spent not less than \$200,000,000 for relief by the time it will be possible for the people to provide for themselves. The reports for this year's crops in the famine districts are discouraging.

SUPPRESS GRAIN GAMBLING.

The fact that the price of corn is just now advancing on account of the apprehended effect of the dry, hot weather on the growing crop is seized upon by the opponents of the anti-option bill as an argument that the passage of that bill would be detrimental to farmers. These saintly "friends of the farmers," the grain speculators and their henchmen, refrain, strictly, from showing any connection between the present advance in price and the operations of the grain gamblers. Their entire showing consists of the usual cheap jumbling together of a little truth and a good deal of falsehood and then stating as a conclusion whatever it is desired to have believed. In the present case the statements are as follows: (1) "The price of corn in the principal markets advanced an average of 2 cents a bushel." A truth. (2) "This speculative demand created an advance which the Washburn-Hatch idea of regulating the laws of trade by the laws of the land would prohibit and prevent." A mixture of truth and falsehood and unwarranted and altogether assumed conclusion which, it is difficult to believe, were joined together by a rational mind. The fact that prospects of shortened crops have always caused prices to advance and that they had this effect on the market for real corn to a more marked degree before the inauguration of the gambling on prices which it is the purpose of the anti-option bill to prevent, is entirely ignored in the above quoted, jumbled statement. Moreover before the invention of option dealing the enhancement of price that occurred was that of real corn, such as is produced, owned and sold by the farmer, while, as now manipulated, the principal appreciation of prices is on what is known as "speculative corn," "future corn," a fictitious article designed by speculative managers to be exchanged for the real dollars of those not in the ring.

Let every Senator who fails to urge the prompt passage of the anti-option bill be held to a rigid accountability by all farmers.

THE RECORD OF THE YEAR.

The fiscal year of the United States begins July 1 and closes June 30. All statements of government operations and all official trade records are for the twelve months ending June 30. Preliminary statements of the foreign trade of the country for the last fiscal year have been given out by the Treasury department. From these it appears that the total foreign trade of the United States was \$1,857,726,910. This exceeds the record for 1891 by \$128,329,904. The business of 1891 was larger than that of any former year. The value of imports was less by \$17,524,912 than last year, but greater than any previous year.

The value of goods imported free of duty last year was \$458,001,145, against \$366,241,352 the year before, showing an increase of \$91,759,793. There was a decrease of \$107,284,705 in imports of dutiable goods. This change resulted largely from the transfer of sugar to the free list.

The value of exports last year was \$1,030,335,626, being the largest in the history of the country. The largest previous record of exports was for the fiscal year ending June 30, 1881, when the figures were \$902,337,346. The increase of domestic exports over last year was \$143,519,324, or more than 135 per cent. This is more than accounted for by the phenomenal increase in exports of breadstuffs, the exports of which amounted to \$301,828,160, an increase of \$173,706,945 over last year.

The balance of trade for the year was \$202,744,342 in favor of the United States; that is, we produced in the United States and shipped to foreign countries nearly \$203,000,000 worth more than we imported from foreign countries. This balance in our favor has been exceeded three times, viz., \$257,814,234 in 1878, \$264,661,666 in 1879, and \$259,712,718 in 1881. During the five years 1877-81, the aggregate excess of exports over imports was \$1,101,000,000, in round numbers.

If our trade records are kept so as to show the true balance—and this is not here questioned—this country should be getting, not only out of debt to the rest of the world, but very soon should place all the world in debt to us.

The crops this year promise to nearly equal those of last year. It is certain from the latest reports that there will be need abroad for our surplus, and if the

famine sufferers are not too poor to buy we should have an active market in which to sell.

The fact that nearly one-third of the exports from this country are contributed by the grain farmers, and that the contributions of the cotton farmers added to those of the grain farmers constitutes about three-fifths of all our exports, and that this sum of agricultural products is nearly three times the sum of the largest balance ever created in our favor, is leading to inquiry among political economists as to whether there is anything in our laws as to foreign trade which affects either favorably or unfavorably the farmer's realization of a full and fair equivalent for his heavy contribution to this foreign trade; whether tariff laws promote or interfere with his opportunity to sell in the highest and buy in the cheapest market.

AN ATTEMPT TO MURDER FRICK.

On last Saturday afternoon, H. C. Frick, chairman of the Carnegie Steel Company, was shot in his office, at Pittsburg, Pa. Three shots were fired by Alexander Bergman, a Russian Jew. Being prevented from further firing by a Mr. Leishman, Bergman drew a dagger and attempted to stab Leishman, and afterwards freeing himself the desperado succeeded in twice stabbing Mr. Frick before he was finally overpowered and placed under arrest. Bergman gave his age as 26, residence Forty-second street, New York, occupation compositor on a New York paper; said he came to Pittsburg last Thursday and had been staying at the Merchants' hotel. In answer to the question, "Did you know Mr. Frick?" he replied: "We all know Mr. Frick." A dynamite cartridge was found in his mouth. Mr. Frick's wounds are serious, but are pronounced not necessarily fatal.

The dispatches state that the occurrence is greatly deplored by the leaders of the laboring men at Homestead, and that some apprehension is expressed lest the tide of public sympathy which has been almost universally with the laboring men may be turned against them. It is probable that this fear is groundless, for the world has long ago learned that every controversy in which the public becomes greatly interested brings out extremists and cranks who are ever ready to surpass the principal contestants in the extremity of measures. This was strikingly illustrated at the time of the contest of Senator Conkling for control of the patronage of New York. Failing to accomplish his purpose by an appeal to the Senate against the confirmation of President Garfield's appointee, Mr. Conkling resigned the Senatorship. Partisanship ran high and the excitement brought out the crank Guiteau, who shot President Garfield, and explained his crime on the gallows.

The present case has many points of similarity with that of Guiteau. Here is a contest in which the whole world is interested. Its importance greatly transcends that which brought out Guiteau. Here is Mr. Frick, the representative of one side of the contest. Here is the anarchist, crank and would-be murderer, Bergman, who seeks—to use the language of Guiteau—to remove Frick. He is doubtless alone responsible for the deed.

THE INNOCENT THIRD PARTY.

The losses now being suffered by the Carnegie Steel Company and by the former operatives of the works on account of the interruption of operations by the present dispute is running into large figures and constitutes a test of the endurance of organized capital on the one hand and of organized labor on the other hand. In the case of the laborers this loss is even now being shared by those not in the dispute by means of direct contributions of money for the support of those with whom they are in sympathy. The loss of wages is also greatly augmented by the strikes in other of the Carnegie works, undertaken for the purpose of assisting the Homestead men in bringing the Carnegie company to terms. Still further, the wheels of industry are likely to be stopped in other lines of manufacturing, the material for which is the product of the Carnegie mills. Even should the Carnegie company succeed in operating its works to their full capacity with non-union help it is altogether probable that union railroad men will refuse to handle the product, and that union workmen in establishments which obtain material from the Carnegie

works will strike before they will touch this product of non-union labor.

As shown in these columns last week, the present contest is essentially one of organization. The question of immediate wages cuts but little figure with either side, and it is probable that, if necessary, the entire strength of the labor organizations of the country will be brought to the assistance of the Homestead workmen, thus locking the wheels of the great iron and steel industries, impeding transportation, and greatly interfering with every other avocation and pursuit.

On the other hand, the Carnegie company has vast capital and boasts that its new chairman, Mr. Frick, has never lost a battle in his many contests with labor organizations, and that the company will in no case recede from the position it has taken.

Thus the contest threatens to become both more intense and more extended, entailing untold losses upon the general community—the innocent third party in the case. So great is the interest of this third party, in every contention, that it may well constitute a public concern and be made to authorize governmental intervention to provide for the speedy and just settlement of every disagreement between capital and labor, by means of compulsory arbitration until a better system can be devised.

SHALL WE BEAR THEIR BURDEN?

Everybody wants the great Columbian Exposition to be a success. Everybody who has read the accounts of interest in the Exposition and progress of the preparations which are continually sent out from Chicago is already satisfied that the fair is to be an immense success. It is not to be supposed that thrifty Chicago is neglecting the opportunity to enrich herself under the advantages obtained by securing the Exposition. It should not be forgotten that Chicago secured these advantages in a competitive contest with other cities. In this contest each competitor made promises in presenting its case. Among the promises of Chicago her representatives presented the following: "We will ask no money from Congress." "Chicago does not ask a dollar to bear the expense."

But now, when the fair has been assured to her; when, according to her own showing, she is reaping immense benefits from it, and expecting to reap untold additional profits, Congress is asked, only two years after the above pleading promises were made, to appropriate the modest sum of \$5,000,000 to the Exposition. It would undoubtedly be very nice for the Chicago capitalists who backed her application for the privilege of taking care of the Exposition to have Congress put its hand into the people's treasury and take out from thence the more than princely sum of \$5,000,000 and lift these wealthy people's obligation from them. But, in viewing how elegant it would be, for these people, to be thus relieved of an obligation, which they boastfully assert their ability to meet, it is well to stop and consider that if this money be paid somebody must pay it, that it is tax money taken or to be taken from rich and from poor to pay an obligation voluntarily, and for a valuable consideration, entered into by wealthy citizens of Chicago. It is very fine to talk about the patriotism of the case; about the honor of the country being at stake upon making the fair a success; about the glory and wealth of this great country; but it is equally well that it be understood that the public treasury is not to be opened; that the people are not to be taxed to secure money to take up \$5,000,000 or any other amount of the voluntary obligations of Chicago. No, we are not ready for that kind of paternalism and Congress has declined to make the appropriation.

Henry Clews, of Wall street, New York, says in his circular of July 23: "The vote of the House of Representatives, controlled as it was almost entirely by political considerations, was plain evidence that neither party dared to commit itself to unrestricted silver coinage; and behind this fact lies the stronger protection that each of the Presidential candidates is absolutely committed against the free coinage heresies; which makes any further concessions to the silver faction in the highest degree unlikely for the next five years."

The angriest person in a controversy is the one most liable to be in the wrong.

EDUCATION OF THE DEAF AND DUMB.

This State supports at no expense to parents of deaf children residing in the State, a thoroughly equipped educational institution, where there are over two hundred pupils, ranging in age from 8 to 20, learning to read, write, cipher, and becoming familiar with all the various branches that are ordinarily taught to children who can hear and talk.

OWN WHAT YOU PAY FOR.

For many years there has been talk of turning to useful work the unused power of the Kaw river at Topeka. Each revival of interest brings out the reliable engineering estimates of the power which may be developed, also duly inflated estimates of the cost of damming the river and placing the necessary machinery to make the power available.

In every case it turns out to be the old story so familiar to every community in the West, viz., the community to contribute enough to constitute a margin for a loan; the company to bond the entire franchise and improvement for more than enough to construct it, and, to own it when completed.

The wisdom of Mr. McAfee's plan is apparent on its mere statement, and is mentioned here not as a matter of local interest but as an illustration, to KANSAS FARMER readers, of the views of a broad-gauged business man on a question which frequently arises in the communities throughout the State.

KANSAS BEASTS WILL BE THERE.

Kansas will make at the World's Fair a notable exhibit of its native animals. The specimens are being prepared by Prof. L. L. Dyche, of the Kansas State University, one of the most skillful of living taxidermists. The exhibit will consist of at least 400 animals, and will include a fine group of ten Rocky mountain moose, seven Rocky mountain goats, nine moose, eight elks, seven antelopes, five caribou, five buffalo and twelve deer, including mule, white-tailed, Virginia and others; eight wolves, timber and coyote; five mountain lions, six bears, twelve foxes, including a beautiful silver gray, besides a large number of lynx, wildcats and other smaller animals.

At Chicago the exhibit will be divided into fifteen groups. It will occupy a room 85x60 feet and the entire floor space is to be built up to represent a natural landscape, with rocks, grass, cacti, willows, quaking asp and natural fir and evergreen trees. On each side of the wing will be built a tall cliff and in between a valley with a running stream of water, a lake and swamp. On the back it is intended to have a panoramic painting, continuing the effect of the scenery of the foreground and giving distance to the scene. Each group of animals will be placed among surround-

ings imitative of their native haunts; the moose will be seen in natural positions in the swamp; the goats and sheep on the rocky cliffs, and the buffalo on a buffalo grass prairie. One feature of the exhibit will be "Comanche," General Custer's famous war horse, that has been mounted by the Professor within the last year.

MISCALCULATIONS.

The number of people, of other vocations, who can tell the farmer all about how to manage his business as well as how to cultivate his land, and how to apportion his stock, is surprising. The fact, that a smaller percentage of people engaged in farming fail than of those engaged in any other pursuit, cuts no figure with these wiseacres, and they go on from year to year dispensing their advice with the greatest prodigality. The Kansas farmer has duly received his share of advice and also denunciation for not acting upon it. Indeed there are prominent people in Kansas who intimate that the farmers of this State are the "biggest fools on earth."

That Kansas farmers, or even the farmers of America, were not the only ones who misjudged the year's markets, is shown by the following from the *Mark Lane Express*, of London, England, which under the heading "Hard Luck" recites some of the disappointments suffered elsewhere by the unexpected turn of the markets, as follows:

The fall in the price of wheat has proved a great disappointment to farmers, and the direct loss to the farming community is a heavy one. It is many years since there were so many wheat stacks unthreshed at this season as may be found now, and the indirect loss through capital locked up in wheat stacks must be very great. In the autumn the majority of those in any way connected with wheat fully anticipated higher prices. Agriculturally speaking, there was nothing that looked safer as an investment than holding wheat, and a special effort was made to hold it. We know of almost innumerable instances where farmers did not buy in their usual quantity of animals because it looked as though the profit arising from cattle would not be equal to that which would be obtained by holding wheat. The hay and straw saved by those who had nothing to feed them, realize very little, straw not bringing home £1 per load, and hay being such a glut in the London market that only a limited quantity, and that of the choicest quality, can be sold profitably. Grain merchants have been crippled and their faith in the future of the trade will be such as to render them slow speculators, and markets will remain heavy. The country will suffer because those with money in the land will be afraid to expend as much as they would like to; and many will have lost so much that they cannot, consequently the land will not produce as much as it might, and that loss will be nation's loss.

Doubtless it would prove costly to ascertain the world's acreage under cropping (we cannot believe that the present figures are correct), and it would be still more difficult to arrive at the actual yield, but surely some method might be adopted which would protect us from making such gross miscalculations.

INTER-STATE WOOL CONGRESS.

At the request of parties interested in the growing and handling of wool, in various sections of the Southwest, the Governor of New Mexico has issued a proclamation calling a convention of those interested in this important industry, to be held at Albuquerque, on the 16th and 17th of next September, during the exhibition of the Territorial fair.

There are two Albuquerquees. The old Mexican town of that name, one of the most unique places on the banks of the Rio Grande, is practically the same in every respect to-day as it was two centuries ago; but the new place, which has appropriated the name and prestige of the old, has grown up in the last ten years, and is a direct result of the new blood which began to circulate in the veins of New Mexico when the railroad penetrated the country. It is a place of about 12,000 people, fully alive and progressive, was the first city ever incorporated in New Mexico, and is now the center of the great wool trade of the Southwest. It is estimated that the annual clip of the Territory is about 18,000,000 pounds, and of this large amount more than one-half is now handled by the merchants of this driving young city, and that explains why the wool congress was called at this place.

Delegates are invited from all neighboring States and Territories, and it is intended to make the convention a general gathering of those representing all branches of this great and growing industry, and the discussions will embrace all subjects bearing upon the wool interest of the South and West.

This is a meeting that will afford the delegates attending it pleasure as well as profit. A general exchange of views on the part of those interested in this industry, and the formulation of plans whereby they may work in unison, cannot result otherwise than in profit to those who are engaged in the business, either as producers or dealers, and while the people of Albuquerque will take pains to make the stay of delegates pleasant and agreeable in a general way, those from abroad will find a source of special interest and pleasure in the opportunity which the fair, then in progress, will give them to gather correct ideas of the products and resources of New Mexico, and the peculiar habits and customs of her native people.

From reports already received a large attendance from all parts of the wool-growing districts of the West is assured, and the occasion promises to be one of importance to all those who are interested in this great industry. Kansas should be well represented, since she is interested in the wool business in a double sense—being herself a large producer, and at the same time raising the corn, wheat and pork to feed a very large proportion of those engaged in this industry in the South-western Territories.

KANSAS WEATHER-OROP BULLETIN.

Bulletin of the Weather Service of the Kansas State Board of Agriculture, in co-operation with the United States Weather Bureau, for the week ending July 25, 1892:

During the past week the rainfall has been slightly in excess of the normal in the Republican, Blue and Kaw river valleys. An excess occurred also at Hutchinson. Over the rest of the State there has been a decided deficiency, especially in the western and southwestern portions, over a large area of which, extending from Rawlins to Harper, either no rain or less than one-tenth inch occurred. The rainfall has been very light also in Marion, Woodson, Montgomery and the southeastern counties generally.

The temperature has been in excess of the normal over the whole State, reaching 99.5 at the central station, 106 at Manhattan, 100 at Minneapolis, 110 at Springvale, 101 at Abilene, 102 at Grenola, 103.7 at Independence, 103 at Oswego, 100.3 at Horton, 105 at Ulysses, 108 at Colby and Offerle, and 105 at Kiowa. Hot winds are reported from Ford, Edwards and Kiowa.

A very few stations report the sunshine as normal, all others report a decided excess.

The weather the past week has been especially favorable to the harvest, which is now practically completed, and stacking and threshing have begun. The yield of both wheat and oats at the machine appears to be all that they promised at harvest, wheat yielding from twenty to forty bushels per acre with a plump berry that causes it to outweigh machine measure.

Corn has grown rapidly and is beginning to tassel in the northeastern counties. In the area over which good rains have fallen it is making wonderful progress. As the rainfall occurred in the early part of the week, however, a good rain at present would prove beneficial. As the corn is now tasseling, rains are needed over the greater portion of the State, and in some localities it is beginning to suffer greatly, especially in the area where the rainfall has been deficient. It is feared that the excessive heat has already injured some tasseling fields, even where the ground is in fair condition. Besides suffering from drought it is being slightly injured by hot winds in Edwards, Ford and Kiowa counties.

Grasshoppers are reported as doing some damage in Kearney and Clark counties.

Plowing for fall wheat has begun in some localities. T. B. JENNINGS, Observer Weather Bureau, Director.

Characteristics of Hood's Sarsaparilla: The largest sale, the most merit, the greatest cures. Try it, and realize its benefits.

It will not make your own heart any purer to throw mud at another man.

LOSS OF VALUE IN CONNECTICUT.

An inquiry just made by the Secretary of the Connecticut State Board of Agriculture has ascertained the average price of farms in that State to be \$28 per acre. In the census of 1880 the average value of farm lands in Connecticut was given as \$49.34 per acre. "Here," says the *Providence Journal*, "in a little more than a decade is an apparent decrease in value of more than \$21 per acre, and though, of course, it would not be fair to put the average value in 1880 in comparison with the value of land in 1892, it is difficult to believe that a farm census to-day would show an average value close to that of 1880, for it is to be remembered that the price asked for the farms included in the Secretary's report is probably much higher than could be secured on actual sale." Moreover, the report shows that in certain small towns some 3,000 acres are offered at an average of \$8 per acre, and farms with buildings in good repair at one-third the price that was asked for them twelve years ago.

Washburn College,

Topeka, Kansas. For both sexes. Collegiate and preparatory courses—classical, scientific, literary; vocal and instrumental music, drawing and painting, oratory and elocution. Twelve instructors. Facilities excellent. Expenses reasonable. Fall term begins September 14, 1892.

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E. J. HOENSHEL, President, Holton, Kas.

We receive many inquiries from our patrons as to where they should go to acquire the education necessary to equip them for the many and varied duties of life. This is a hard question to answer, but would be harder were it not for the fact that we know (in a business way) many of the managers of manufacturing companies, traveling men, bankers and others who have secured their education in different institutions, none of whom are more earnest in their work or stand any higher than the Davenport Business College of Davenport, Iowa. Their students are found everywhere throughout the West and North occupying the best of places. The Principal, J. C. Duncan, is in earnest in wishing each one who attends this school to be thorough in all they undertake.

G. A. E. Line of March to the National Encampment at Washington.

The directness of the route, facilities for rapid and comfortable advance, make the Vandalia and Pennsylvania lines the desirable avenues of travel to Washington. The train service is characteristic of the Standard Railway of America: Pullman Vestibule Dining and Sleeping Cars and Modern Day Coaches, marking the highest conception of railway equipment. Connecting lines from the West and Southwest enable passengers to take fast through express trains at St. Louis. Pleasures anticipated by a visit to Washington begin as soon as passage is taken on the luxurious trains of the Vandalia and Pennsylvania lines. Side trip to historic Gettysburg, if desired. Low rates. For details address Chas. E. Owen, Traveling Passenger Agent, Kansas City, Mo.

The origin of all mankind was the same; it is only a clear and good conscience that makes a man noble, for that is derived from heaven itself.

The Horse.

Horse Notes.

Give your stable plenty of air and light.

Have regular hours for feeding your horse, and give him sufficient time to eat.

Don't tie your horse too low down or too long, just so he can have the use of his head to lie down.

Feed your horse clean food; if your oats are dusty clean them, and don't feed hay full of dust or dirt.

Feed your horse as near the ground as possible. When eating low down more saliva becomes mixed with the food, aiding digestion.

Give your stable a thorough cleaning occasionally. It will more than repay you in the way of appearance, and is beneficial in a sanitary way.

Don't strike your horse with a fork handle, or strike him over the head; if he needs punishing use a small whip,—every-day clubbing or striking does no good. Make him respect you and the whip, and have him fear nothing else.

The horse is involved in the most ancient superstitions of Arabia. They believe him to be endowed with a nature superior—not in degree only, but in kind—to that of all other animals, and to have been framed by the Almighty with a special regard to the convenience of man. One of their oldest proverbs tells them that the horse is the most eminent of dumb brutes, and the most meritorious of domestic actions is that of feeding him.

Feeding a horse principally on grain and driving it five hours without water is like giving a man salt mackerel for dinner and not allowing him to drink before supper time—very satisfactory for the man. If you know anything about the care of horses and have any sympathy for them, water them as often as they want to drink—once an hour if possible. By doing this you will not only be merciful to your animals, but you will be a benefactor to yourself, as they will do more work, they will look better and live longer. If you are a skeptic and know more about horses than any one else, you are positive that the foregoing is wrong, because you have had horses die with watering them too much, and boldly say that the agitators of frequent watering are fools in your estimation, and you would not do such a thing. Just reason for a moment and figure out whether the animal would have ever drunk and over-chilled his stomach if it had not been allowed to become over-thirsty. A driver who sits in his wagon and lashes his worn-out, half-curried, half-fed and half-watered team deserves to be punished.—*Ec.*

Every horseman, every one who drives a horse, breeds a horse, or ever expects to own a horse, should rise in his might and cry out for good roads. The movement now on foot for good roads in the United States should not be lost in oblivion, but the movement should be carried on until every State in the Union can point with pride to excellent roads. The plan advocated is to secure government aid to improve public highways, and while the good work is being agitated horsemen should not be asleep. Every breeder should agitate it in his locality; should talk the matter over among his neighbors, and before long a healthy sentiment can be created that is sure to result satisfactorily. The light harness breeding industry cannot be more rapidly enlarged and made a source of sure profit, by any measure under discussion, than it can by the improvement of our highways. The market for drivers would increase beyond what would now seem a ridiculous estimate; new life, based upon reason, would characterize the breeding industry, and the American trotter would become beyond all question the most useful animal on earth. Everybody should take a hand and cry out long and loud for good roads.—*Western Horseman.*

It is estimated that over 100,000,000 of people now speak the English language, over 69,000,000 German and over 41,000,000 French.

I have a certificate I find I am unable to use, for a six months' course, including board, at a leading Kansas City business college. I will offer a bargain for cash. Address "Henry," care of *Advocate*, Topeka, Kas.

Gossip About Stock.

Will some of the KANSAS FARMER readers inform R. P. Girdon, Valentine, Neb., where he can purchase a carload or two of ewes?

R. S. Cook, of Wichita, announces that he will hold forth this season at our leading fairs with a herd of modern Poland-China swine that will interest all lovers of the breed.

Breeders of live stock who intend to exhibit at the Kansas State Fair should correspond with the Secretary, L. H. Pounds, Topeka, and secure premium list and particulars about accommodations.

Stockmen are interested in fences as never before throughout the West, hence may find it advisable to correspond with the Reliance Manufacturing Company, 720 American Bank Building, Kansas City, Mo.

E. D. King, breeder of Merino sheep, Burlington, Kas., is visiting some of the leading flocks of New York and Vermont. Mr. King proposes to keep in touch with Eastern breeders and ascertain whether they are still keeping pace with the times and progress of Western sheep husbandry.

Our Chicago manager recently visited the farm of Mr. C. B. Crumpacker, Washington, Iowa. Mr. Crumpacker has about ninety head of Short-horns of the Cruickshank blood and is well prepared to supply stock. He has been in the business for years and has a farm of 240 acres well suited for stock breeding.

The Red Ball Stock Food is being sold in Chicago by Morris H. Paige, of 27 South Water street. This stock food is meeting with great success, and some marvelous cures have been reported about it, so says our Chicago manager. The Red Ball Stock Food is manufactured by Charles Kertell, of 623 Howard street, San Francisco, Cal.

W. W. Waltmire, the well-known breeder of Chester White swine, informs the FARMER that he will visit the leading Western fairs. He has bought back from J. K. Moore, of Wellington, the boar Alliance 5775, which now weighs 740 pounds, and will carry easily 150 pounds more. Mr. W. will also hold a public sale of Short-horns this fall.

The Secretary of the Kansas State Fair is very anxious to confer with all enterprising cattle breeders with reference to making an exhibit this fall. There seems to be a notion current that a majority of the cattle breeders have lost their nerve and courage. It is hoped that Kansas breeders will forever refute the imputation, even though other States do not.

Mr. Geo. E. Breck, of the "Willows," Paw Paw, Mich., reports that his importation will arrive within a few days. Mr. Breck will have some very fine Shropshires to offer this fall. He has decided on September 27 as the date for his sale. This will afford an excellent opportunity for Shropshire men and they ought to take advantage of it. The Shropshire breed is rapidly growing in favor.

We presume that almost every one is familiar with the picture of Doctor Owen. His face has graced the columns of this paper as well as a thousand others in advertisements of the Owen Electric Belt, and our Chicago manager requests that we say something about the Doctor as an agriculturist. He is the proprietor of a fine stock farm situated twenty-six miles from Chicago on the Wisconsin division of the C. & N. W. R. R. His farm is well stocked with horses of good quality. He has one horse that is indeed an oddity which he has named the Ace of Clubs. This singular name was adopted on account of its having a mark on the neck in bright colors representing the ace of clubs. Twenty-seven colors are discernible on this horse; forty-five under the microscope. The horse stands sixteen and one-half hands high and weighs 1,300 pounds, is a kind animal and very valuable. Among other noted inhabitants of this farm are Alta Boy, Mink, Prince of Wales and Fanny Belmont. The Doctor has made a wonderful success of the electric belt business and is an adept in the horse profession. His stock is in excellent condition.

The Scotch papers tell of a lady near Edinburgh who keeps a cat farm and finds it a profitable speculation. She rears kittens for sale—tortoiseshell, Angora, Persian and other varieties. The tortoiseshell are the most costly.



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Among the Advertisers.

Curtiss Business College, of Minneapolis and St. Paul, have issued their annual catalogue, and our Chicago manager states that it is well gotten up and does great credit to its author. The Curtiss college is well conducted and enjoys the confidence of the college fraternity.


The National Co-operative Club, 184 South Water St., Chicago, are offering their services to farmers for the disposition of products of the farm. Our Chicago manager writes us that they are thoroughly reliable, and are conducting their business in an honorable way. Write them for instructions to shippers.

The Jennings Seminary catalogue for 1892 is ready for distribution. It is the thirty-second annual issue, containing the list of officers and students of the Jennings Seminary and Aurora Normal School and Business College. This seminary is under the direction of the Methodist denomination, and bears a good reputation, so says our Chicago manager.

A representative of our Chicago office recently visited the extensive works of the Page Woven Wire Fence Co., Adrian, Mich. The merits of their fence is beyond question, as the large and growing business they are doing testifies. They are employing over one hundred hands and running night and day to meet the demand. It is a well constructed fence and is very desirable for farm purposes. They will send descriptive circular to any one applying.

The Reliable Incubator, manufactured by the Reliable Incubator & Brooder Co., Quincy, Ill., is meeting with wonderful success in that incubator city. The manager of this company reported to our Chicago manager that sales were being made locally far beyond their expectations. The Reliable was formerly manufactured at Decatur, Ill., where it is well known as being a perfect success in hatching. The company are now preparing a new factory and are enlarging facilities, expecting a greatly increased business during the coming season. Their incubator is first-class in every respect and they are enabled to compete as regards prices with other concerns.

We are of the opinion that there is a great lack of appreciation of the importance of business colleges. Our young men and women need just the kind of an education that can be obtained in a first-class business college. There they get knowledge in its practical form. A very successful business college is the Gem City Business College, Quincy, Ill., Mr. D. L. Musselman, principal and proprietor. Mr. Musselman is highly respected in the "Gem City," has made a wonderful success of business, and is now erecting what will be the most handsome business block there. It is said to be the largest and most elegant edifice ever erected for business college work. This building will be ready for occupancy September 1, so says our Chicago manager.



Prof. W.H. SKELTON, Manager.

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