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## THE KANSAS FARMER.

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Topeka, Kansas.

### Weather Laws.—No. 1.

In the spring of 1855, then residing near Oregon, Holt county, Missouri, a large train came in from Salt Lake after supplies, and to take out a large number of English and Swedish proselytes, then newly landed. At the hotel a number of old traders and plainmen gathered about the wagon-master, and all appeared anxious to learn whether the winter had been mild or severe in the mountains, and whether the snowfall had been heavy or light. They were told by the head teamster that the winter of 1854-5 had been mild in the mountains, and the snowfall light. This was looked upon as a bad omen. It was said that the river would be low, and but little boating up the Missouri the summer following; freights would be high, and markets inactive, with the freight paid by the "purchase people" both ways.

The winter of 1855-6 was one of universal severity in the mountains, on the plains, and indeed throughout most of the United States. Again, the head wagoner of the Salt Lake train "came in" in the spring of 1856, for another cargo of freight and proselytes, but this time a different tale was told of hardships, struggling through the snow, and of the suffering of men and animals from cold. The old plainmen, trappers and traders of the Platte Purchase, now considered the omen good—the river would be high, freights low, business active, prices good, and "times booming." I cannot say that anybody spoke of the influence of this accumulated condensation of water upon the weather of the plains, nor can I say that it was not discussed. Afterwards, however, when becoming more familiar with the history of those long, thread-like, branchless streams which discharge the melting mountain snows through a dry, sandy plain, where there is little rain, I was struck with the resemblance of the Platte, the Arkansas, the Niobrara, Milk river, etc., with the Nile, the Euphrates, the Amoor, the Indus, the Ural, the Rio Grande, etc. In all these, the floods are proportioned to the volume of melting snows. [As to the Nile, we now know that the flood varies with the tropical rains about the lakes which form its sources.]

On many of these streams the years when the snow water is light, the valleys suffer from drought, and when the snow-fall has been heavy they never suffer from drought. From this the doctrine was deduced that the amount of water borne inland to any particular district, would find an expression in the congealed water condensed upon the mountains which feed these streams, and this would again find expression in the floods which followed the period when an accumulation of this congealed water is liberated.

But the water flowing off of a mountain range into a plain of loose materials, occupies more ground than the visible channel. The water penetrates the soil in many places, and far down the plain breaks forth as springs. Much water is also brought up from considerable depths by capillary force and evaporated into the air.

During a portion of the year it would appear that the air yields moisture to the earth more than it takes up from the earth. During another portion of the year the conditions are reversed, and the earth yields more moisture to the air than it then receives.

Let us further illustrate: Suppose that on any particular day, say March 21st, the dew point—that is the temperature at which the air when cooled begins to deposit moisture, is at 63°; but on that day the temperature is 70°, then the air instead of wetting the soil, will be taking up moisture from the soil. The water taken up may become the cause of breaking up the equilibrium in the lower strata, and that air having a temperature of 70°, may acquire an ascending impetus, and rush up to where the temperature is below 30°, and thus locally pour down a torrent of water. Still since the temperature will soon return to 70°, that water will be again taken into the air, or what is worse, it will by the rivers escape to the sea. In either case it has added nothing to the general water supply of a large inland area, but if the rainfall has been violent so that a considerable amount of water is poured into the river, the water supply is in fact diminished by the escape to the sea of this water, concentrated at a small focus from a large loose area. But if we suppose the air to be saturated at 63° and the temperature

to be gradually falling to a temperature below that, and that for four or five months it will remain below that temperature, then we know that a considerable amount of water will be deposited upon the plains, and left there so far as the air is concerned. It will escape in part to the sea, and will be largely used in soaking the ground, while a certain other portion will, on warm days, rise again into the air, and being wafted toward the mountains, will there be deposited as snow, or falling upon the soil of the plains, will be caught by frost and locked up until spring.

When this supply is large it tends, when added to the incoming vapors of the spring, to prolong the season of rainfall and humid air, and when light, or when owing to the extreme mildness of the winter, (especially when mild and dry), it is melted and evaporated early, to hasten that period when the drought is greatest. Guided somewhat by these principles, which to me appear most obvious generalizations, I have for a number of years been quite successful in forming a fair conjecture of the coming season. Ordinarily there is no difficulty in it except where one is deceived by local phenomena, as the piling up of snow in some limited locality, while the largest areas are unusually dry.

Last June I made a venture, to put to the test of trial a somewhat more advanced hypothesis, and undertook to say a year in advance as to what the general character of the year extending from August 1st, 1879, to August 1st, 1880, would be.

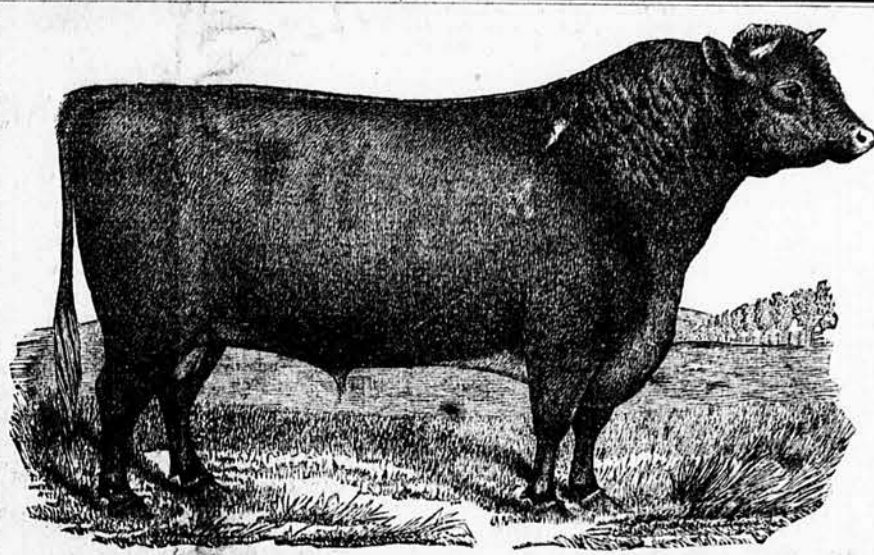
While I still believe that the new hypothesis is compatible with the old one in regard to the snow in the mountains, and would have, in fact, no other expectation to guide us in a doubtful case to a more unerring conclusion, yet I am bound to say that if it is true, there is a large fall of snow upon the eastern face of the Rocky Mountains, as some persistently claim, then I should adhere to the new hypothesis, and insist that the year 1880 will be a year of light rains for all that part of the plains lying between latitude 35° and 45°, snow or no snow.

As I shall not in the succeeding papers return to this subject, I will here remark that I feel very confident that from latitude 47° to 37°, the eastern face of the Rocky Mountains, and all the plains abutting upon these walls, are remarkably free from snows, while the west side of the "divide," and the western slope of the Sierra Nevada range, have unusual snowfall. North of latitude 47° these same humid winds from the Pacific having whipped over the mountain range, which is there an elevation of six thousand feet, has given abundant snow in northern Dakota and in Manitoba.

To illustrate the principles by which such conjectures have been made, with some degree of accuracy, and to assist somewhat at the placing of meteorology back upon its ancient basis, when there was more study of the weather and less of particular storms, a series of papers, essentially prepared in the summer of 1879, though mostly re-written, is presented to the FARMER.

I trust the reader will have no trouble, in succeeding numbers, in understanding me when I speak of the annual period of influx and the annual period of efflux. By the first will be understood that portion of the year when the falling temperature of the plains causes the air to leave with us more water than it takes out by evaporation. By the period of efflux will be understood that portion of the year when the volume of water in the soil is largely passing to the air again and being borne out. Of course the water in streams which escape to the sea, is water of efflux, and since all the water not evaporated back into the air, finally flows out by the discharging river, by measuring the volume of water discharged by a river in a year, we know how much water is received in excess of that retained in the air and soil. This amount becomes an irregular constant, reaching its minimum limit in certain drouthy years, and its maximum in certain wet years. Subject, then, to this slight variation, the volume of water discharged by any river in a year, is equal to the amount added to its basin in that year. The amount of water discharged by the Missouri may be slightly less than that received upon its basin, but obviously it cannot discharge more water than it has received. Assuming that the discharges by which the influx water of one river basin is borne to another, average up about even, the proposition will still stand that the amount of water discharged from a river basin is the equivalent of the whole additional supply.

The character and number of streams appearing upon a map of any region, very fully represent the climate of the country. Counties



DUKE OF NEWHAM, OWNED BY J. C. STONE, JR., LEAVENWORTH, KANSAS.

in Kansas not traversed by any stream whatever, should be known to be dry. Counties in Kansas traversed by the Arkansas, or Kansas, but receiving no creeks or brooks, we absolutely know are dry counties, liable to frequent and extreme droughts. By tracing across the "plains," upon a good map, the area without streams, great or small, the area of the least rainfall is easily outlined. In occasional years the region without streams may receive a little rain—enough perhaps to raise crops of small grain, and this being evaporated as often as it falls, (and that presently after falling), it is not gathered into either salt lakes or streams, but collects upon flats, where evaporating it leaves the minerals held in solution to constitute a "salt plain," or "alkali flat." All such areas are without trees, and they are all toward the heart of the continent or under the lee of a range of mountains reaching quite to or near the snow line.

We can write the whole history of the people on these lands which lie between forests and deserts—the great grass lands of the world. If the people have adopted irrigation—wealth, dense population and the highest types of civilization and powerful empire: witness Egypt, Assyria, Persia, India, all Asia Minor, and the ancient Peruvian and Aztec races. If the people do not or cannot irrigate, then a people of flocks and herds as surely occupy that region as a people of culture are developed in the other. At one extreme of this civilization stands the "Cossacks of the Don," and of all the steppe country, the "gaucheros" of the pampas, the "bushranger" of Australia, the "Texas ranger" of the Rio Grande, and at the other the "Bushmen" of South Africa, the "Bedouins" of Sahara, and the "Turkomans" of Central Asia.

A country with numerous streams and many overflowing lakes, is a humid country, and if below the polar circles is clothed with forests, and its people largely engaged in the lumber interests and ship-building, in temperate climates, and in sugar cane and the like in tropical climates.

The floods of the streams become an index of almost the whole weather problem, the time of flood denoting the period of the year when the greatest efflux begins, and the ebb the period when evaporation is taking up more waters than is being received, and in winter that the water supply is locked up in frost. By observing carefully the floods of the rivers we may observe the progressive march of the water of influx, that is we may determine the order of succession. To illustrate: The rivers of the south Atlantic and Gulf states, and also the Ohio, Tennessee and Cumberland, have this spring been at flood. What area is visited by drought the year these floods occur?

C. W. JOHNSON.

Hiawatha, Brown Co., Kansas.

### Cabbage.

The cabbage tribe embraces several distinct as well as widely different plants, of which the following are all of importance in cultivation: cabbage, kale, cauliflower, brocoli, kohlrabi, rape, turnip, and rutabaga. These, though differing so widely in form and manner of growth, are considered by botanists as having sprung from the same origin.

The cabbage is a biennial plant; its first year is spent in laying up a store of nutriment to be expended the second year in sending up seed stalks and the production of seed. It is a native of the west and north of Europe, its native habitat being the low, damp districts near the coast. In its wild state it is a slender, almost trailing plant, with narrow, thickish, smooth leaves, with no appearance of a head such as

we use in the cultivated varieties. The many forms under which we find this plant in cultivation, are the result of cultivation, and clearly show the power of climate, soil and culture to modify the habits and change the characteristics of plants. The cabbage has been long in cultivation, its introduction being hid in the distant past; it is, however, mentioned in some of its forms as already in cultivation by ancient Greek writers, and Roman authors speak of many varieties cultivated in that country. The ancient Celts also cultivated the cabbage many centuries ago. It has been grown in Holland for centuries, and is supposed to have been introduced into England about 1561.

As might be inferred from its native habitat in low, moist situations, this plant succeeds best in a moist soil and situation.

The cabbage as a fodder and food plant is justly growing in popularity. The amount of nutriment that may be raised from a given surface of land, is quite remarkable. If planted 3x3 feet, it will give about 4,800 plants to the acre. It has been known to produce as much as forty-five tons to the acre, though half this amount may be considered a very fair crop.

An analysis of the cabbage shows it to be composed of the following constituents: Cabbage head—water, 89; organic matter, 9.8; ashes, 1.2. Cabbage stalks—water, 82; organic matter, 16.1; ashes, 1.0.

It is thus seen that this analysis agrees with the prevalent opinion that cabbage is a very succulent or watery plant; nearly nine-tenths of the head and more than four-fifths of the stems being composed of water.

The organic matter which, of course, contains the principal parts of the nutrient elements of the cabbage plant, is composed of the following constituents: Head—albuminoids, 1.5; carbohydrates, 6.3; crude fiber, 2; fat, etc., .4. Stem—albuminoids, 1.1; carbohydrates, 12.2; crude fiber, 2.8; fat, etc., .8.

This represents the proportion of these substances that are found in the plant in its natural or gross state. In order to determine the amount of these nutritious elements contained in each of these parts of the cabbage plant, exclusive of the water, those given for the head may be multiplied by ten, and those of the stem by six.

A ton of cabbage in the green and dry states, will give of actual nutriment, leaving out the crude fiber as unassimilable, about the following quantities: Heads—green, 164 pounds; dry, 1,640 pounds. Stems—green, 241 pounds; dry, 1,446 pounds.

Now if we allow 4,000 plants to the acre to make a fair growth and produce heads that will average ten pounds each, it will give us a product of twenty tons per acre, or, in the aggregate, about 3,300 pounds of actual nutriment to the acre. When it is remembered that twice that amount is often realized, it will appear that where this crop is or may be made reasonably successful, it is a profitable crop to raise. This will appear more distinctly if we compare this with a crop of corn and one of wheat. Allowing corn to produce thirty-five bushels to the acre, and wheat twenty, the amount of actual nutrient elements obtained from an acre, as compared with cabbage, will stand about as follows: Cabbage, 3,300 pounds; corn, 1,660 pounds; wheat, 985 pounds. Excess of cabbage over both wheat and corn, 655 pounds.

It thus appears that, according to my figuring, one acre of cabbage is theoretically worth one-fourth more than an acre each of wheat and corn. But it is a question whether, cost and risk considered, it will do to depend on any such advantage in favor of the cabbage crop over that of the cereal grains mentioned. I think there can be no doubt but that where the conditions are favorable to its growth, it would be profitable to raise a few acres of cabbage for milch cows and other stock when the pastures fail in the fall; and if enough could be kept to give a feed two or three times a week during the winter to cows, poultry, etc., it would prove a most excellent addition to their ordinary dry food.

L. J. TRIMPLIN.

### Wonderful Kansas.

From the inception of her history, Kansas has been in all respects a constantly recurring series of surprises.

On the old maps it was called a desert, and now it has at one leap become one of the world's granaries. Its railroads were built through what were described as howling wildernesses, and their stock today is par or nearly so. Its new towns tax the postoffice department to keep up with them, as they sprout up like spring grain.

We thought ourselves prepared for anything from that quarter, but we confess to a surprise in finding the agricultural and live stock interests competing with those of Iowa, Missouri, Illinois, Ohio and Kentucky. One day's examination of the herds of Mr. J. C. Stone, Jr., convinced us that an earnest competition in the best style of stock is at hand. This farm (Fairholme) is three miles

from Leavenworth, and his herd such as would be a subject of pride in the older states. His bull, Duke of Newham, whose portrait is given in this number, we think more nearly an exact reproduction of his sire, 14th Duke of Thorndale, than any of the get of that famous bull we have lately seen. Six more of his yearling bulls are by the scarcely less famous 4th Duke of Hillhurst, besides Louans, Young Marys, and other excellent families.

At the head of this herd stands Kirklevington Lad 3d 32982, whose three tops since the imported cow Kirklevington 11th are 10th Earl of Oxford, 3d Duke of Oneida, and 14th Duke of Thorndale. Here are found also five fine Bates cows, Kirklevingtons, Crags and Hilpas. The other females, about 65 in number, are Louans, Young Marys, Cambrics, Belindas, and other equally good families, among them many excellent show cows. We also found here a fine lot of steers and spayed heifers of his own raising, some of which would have troubled the prize winners at the fat stock show, if they had been present. His sheep, numbering between three and four hundred, are Cotswolds and Southdowns, and each a credit to the breed.

If any of our readers are curious to see what is being done in the higher lines of stock breeding in Kansas by a young man of twenty-three years of age, let them visit Mr. Stone. He is justly proud of his achievements, and always takes pleasure in showing what has been accomplished in this state, and what its capacities are.—*Western Agriculturist.*

### Capital and Labor on the Big Farms of Dakota.

We spent an evening in the comfortable home of one of the superintendents, and heard him explain the system of book-keeping. Every man is engaged by contract, for a certain time, to do certain work, for certain wages. He receives his money on presenting to the cashier a time check certifying the amount and nature of his labor. The average price paid to hands is \$18 a month and board. In harvest they get \$2.25 a day. A record is kept by the foreman of the amount of wheat turned out by each thresher, by the driver of each wagon of the amount of wheat loaded by him, and by the receiver at the elevator of the amount of wheat brought in by each team. All the farm machinery and the provisions are bought at first hands for wholesale prices. Mules and horses are bought at St. Louis. Wheat is not stacked or stored, but shipped to market as rapidly as possible. Everything is regulated by an exact system, and this is what makes the farms a success.

Brains and energy in the man who controls them and in those whom he chooses as his subordinate officers—this is the secret of the enormous profit which have been made on the Dairymple farms. The cost of raising the first crop is about \$11 an acre; each subsequent crop costs \$8. The average yield for this year was about nineteen bushels to the acre. This could be sold at Fargo, on October 1st, for 80 cents per bushel. A brief calculation will give you \$4.20 per acre profit on the new land, and \$7.20 for all the rest; or, say, \$130,000 gain on one crop. These figures I believe to be too small, rather than too large.

But does this large farming pay for the country? It absorbs great tracts of land and keeps out smaller farmers. It employs tramps, who vanish when the harvest is over, instead of increasing the permanent population. It exhausts the land. The cultivation is very shallow. There is no rotation of crops. Everything is taken from the ground; nothing is returned to it. Even the straw is burned. The result of this is that the average crop from any given acre grows smaller every year, and it is simply a question of time under the present system, how long it will take to exhaust the land.—*Henry F. Van Dyke, Jr., in Harper's Magazine for May.*

**Farm Stock.**

**The Best Sheep for Southwest Kansas.**

The Sedgwick County Farmers' Club had recently a discussion as to the best breed of sheep for that country, which was briefly reported in the *Republican*. W. H. Ransom opened the discussion and favored a cross between the Merino and Cotswold breeds. For seven years or more of its life a sheep will yield a fleece equal in value to the carcass from which it is taken, and in the meanwhile the increase in number will pay for the keeping. The difference between the price of wool at the place where it is shorn and where it is marketed is less than any article produced on the farm. If the price does not meet the grower's views when it is taken off it may be stored a year for one per cent. of its value, and it is pretty sure to gain that much in weight. In all old countries where agriculture has made the greatest advance sheep-raising has constantly grown in importance. During the last 100 years the number of sheep in Great Britain has doubled, the price of wool has doubled, while the price of mutton has more than quadrupled. No branch of farming in England to-day is in a more prosperous condition than the production of wool and mutton. The demand for mutton always increases as the community increases in age and wealth. The butchers of Wichita will tell you that the demand for mutton as compared with beef increases every year. Again, sheep are the best adapted to furnishing meat for the farmer's family of anything he raises. The carcass being small it can be eaten fresh. Mutton can be kept longer than beef under the same circumstances, and its flavor is improved by its being kept a reasonable length of time. The health and the bill of fare of the farmer would both be better if fresh mutton often took the place of salt pork. Sheep-raising like any other business, has had its ups and downs, but it is now pretty generally admitted that no kind of business has paid so well for a series of years. It is an interest too much neglected in the west. This animal that furnishes clothing, food and light, which eats what other animals reject, which will climb hills too steep for other animals to ascend, which will make quite a portion of its living off of obnoxious weeds, is entitled to vastly more credit than it receives.

Many of our farmers introduce in a growl because their corn only sells for eighteen cents per bushel, when, if fed to sheep, it would bring them from 5c to \$1.00. For every bushel of corn I have fed my sheep since last shearing I expect soon to shear one dollar's worth of wool, while the increase in lambs will more than pay for all other feed they have consumed.

In conclusion, fellow-farmers, my opinion as to the kind of sheep for you and your neighbors to raise may be given in a nutshell. It is the sheep that is vigorous, strong, growthy, symmetrical, and bearing a heavy fleece of first-class wool, and my experience tells me that that sheep is a grade or a cross-breed between a Cotswold and Merino.

Mr. Fox followed with a strong plea for the Merino. He claimed they were hardier, produced more wool, and consumed less feed; admitted that they matured less early and were smaller when matured, but claimed they were less liable to foot-rot and scab, and were better protected from the storms of winter and hot suns of summer by their close fleece. In short, he recommended the pure Merino to the farmer as the most desirable sheep for them to raise. When asked why he recommended a cross between the Cotswold and the Merino as the best sheep for wool and mutton in his late report to the department of agriculture, he answered that that was just his opinion, but he did not consider a mutton sheep in demand for the farmers here, or mutton producing of any great importance to them.

Mr. Fout's experience had been principally with the Merino, and he found them very profitable. He believed the flock he had charge of now would yield fully one dollar's worth of wool for every bushel of corn they had consumed. The flock of Mr. Uhl, 450 in number, sheared last year 17½ pounds per fleece. When asked if Mr. Uhl's flock were all pure Merinos, he answered no, and added that he could not say that there were any pure breeds among them.

Mr. Pierpont thought that self-interest sometimes moulded the sentiments of men when they were talking upon matters of this kind. He had been a butcher, and was of the opinion that Merinos were not the equal of the larger breeds for mutton; that the European demand for dressed meats did not generally include them. He had seen but a few flocks with the foot-rot and they were Merinos. He believed that the production of mutton must be one of the sources of profit to the sheep-raiser of Sedgwick county.

Mr. Eicholtz considered the Southdown the best mutton sheep, and also very fair for wool, and he favored it as the Sedgwick county sheep.

Mr. Carothers had had experience with sheep back in Ohio. Merinos were the popular sheep there, and they had never taken the place of the common breeds altogether. The average fleece with them had increased from three to nine pounds.

Then, at the request of the Club, Mr. David Hayes submitted for their consideration a proposition for the organization of a joint stock company which should be designed to place sheep-raising where it should be second to no other interest in Sedgwick county.

**Mutton and Wool.**

For the production of wool and mutton there is no more profitable sheep that can be raised

than the Merino and Cotswold crossed. The lambs are of good size, and if sold to the butcher will bring a fair price; but they are worth more for wool and mutton as sheep. The wethers at three years old will make good mutton, and in the markets of large towns and cities are always in demand. The ewe lambs should be raised, in order to take the place of older ewes, which ought to be taken out of the flock at five years of age. Ewes for mutton and long wool should never be allowed to have more than three lambs.

The great puzzle with many farmers was to know whether to use Merino or Cotswold rams with ewes of one cross. No farmer who desires a mutton sheep should breed much finer than a half-bred Merino. If, after crossing the half-bred with another full-blood Cotswold, then ascertain what kind of wool is going to be in demand, and if the market is demanding a coarser wool, use the Cotswold again; but if finer wool is likely to be in demand, pause a little before using a full-blood Merino in this case, for though you will obtain a fine fleece, you will have less carcass and not as good mutton.

Mr. Harris, of Moreton Farm, says he can always tell you an American and an Englishman when they go to examine his flock; the Englishman looks at the form of the animal and begins to talk about the weight of the sheep. He never says anything about wool. If he gets form and weight of carcass, he knows the wool will be all right. The American examines first for wool; he looks at the length of staple and fineness of fiber, and lastly weight of carcass.

In the eastern states, and also in Ohio and Michigan, long-wooled sheep will give better returns than the fine-wooled Merino, and will require a different kind of treatment. Nothing will produce better wool than a liberal supply of roots, to which may be added some corn, but we should never fail to keep the animals improving, nor let them fall off in flesh, which is a great injury to the wool.

For the far west and mountainous regions, the Merino is better adapted than the heavier sheep, but there will have to be a great change in the manufacture of wool before the finest wool, only adapted to the production of fine cloths, will be worth as much per pound as a cross-bred wool from the Merino and Cotswold, leaving entirely out of the question the extra value of the carcass for mutton. And as there is a field wide enough for both enterprises, there is no need for controversy in the matter. In fact it only makes parties appear foolish to be continually looking for some place or matter upon which to make a dispute, and it sometimes seems as though agriculture of all subjects was the most fruitful in controversy. A great many who attend agricultural meetings, seem to have but one object, namely, the disputing of every question raised. The United States are large enough to embrace every branch of agriculture, and if persons were as anxious to cultivate that branch best adapted to locality and climate as they are to criticize the doings of others, we should have less grumbling about the unprofitableness of farming.

There has been the past year a somewhat strange anomaly in the mutton and wool business. While there have been exported large quantities of mutton to England, some of the largest manufacturing corporations have been buying combing wool abroad. Large quantities of both English and Irish grown wools have found a market on this side the Atlantic. The carcass of the Merino sheep is not wanted in England—the mutton has too rank a taste for that region—but the mutton from a cross of the Merino and Cotswold would not be objectionable, and might be made a source of large profit to the farmer; for there is a great demand for wool in this market.

Sheep will eat the corn, and it is greater economy to send this grain to England, made into mutton, than to export the corn as harvested. It costs much less to bring a dollar's worth of wool to the place of consumption than a dollar's worth of corn to the seaboard. Six cents would pay the freight of the wool, while it would require more to pay the freight upon the corn than it is worth at some of the further points of production. Besides which, exporting corn draws away the fertility from the soil, but feeding the corn to the sheep increases the fertility of the land. So that in place of worn-out land we have a rich soil, besides keeping at home the money which would have to be paid to foreign countries for wool. We receive money in return for the mutton exported, and obtain better prices for the corn by transporting it in the form of mutton. This question of transportation is an important one, and ought to engage the serious attention of the farmer, as it necessarily enters into all sound calculations.—*Cultivator.*

**Raising Artichokes.**

A good deal of interest has recently sprung up among the readers of the *KANSAS FARMER*, in the cultivation of this root, and those who have tried it recommend the artichoke highly as a root crop for all kinds of stock; and for milk crop are particularly good, on account of their not imparting a disagreeable odor to the milk as turnips are apt to do. Mr. E. A. Reihl, of Alton, Ill., who has raised artichokes for stock, adds his testimony to their value, and gives the following, in *Coleman's Rural*, as his manner of cultivation, which has the important advantage of being simple and economical:

"Any soil that will grow any other crop will grow them, in fact some of mine are on land where I never could get anything else to grow, though on rich land the yield will of course be greater. Prepare the land as for corn or potatoes, and draw furrows four to five feet

apart. Cut the artichokes into pieces about an inch square, drop these into the furrows sixteen to twenty inches apart. Just as or before the wethers are brought up, go over the whole crossways with a harrow, and continue harrowing once a week until they get too large, then use cultivator and plow. If the harrow is used in time, it will destroy all weeds, and when they will grow so fast as to shade out all weeds. Some have asked me whether they could cut the tops and cure them without detriment to the roots, as their stock was fond of the tops, but as the roots are not formed until late in the fall, and they continue to grow long after frost has killed the foliage, I do not think it would be advisable to cut the tops. Planting can be done as late as the middle of May, but earlier planting is preferable. I did mine by plowing out, having pickers follow right after the plow, then harrow and plow again. They can be dug in the fall and kept in piles and covered with a little earth, which will keep them perfectly, as freezing does not hurt them. Whoever has hogs, cattle, sheep, horses or mules, should grow them; all stock are fond of them; they contain much nutriment and promote good health in all animals to whom they are fed."

Another correspondent in the same paper adds his testimony to the above. He says:

"I 1878 I planted about half an acre on old, manured land. The yield was very large. From what we dug for seed—fifteen or twenty bushels—I estimate the yield at not less than six hundred bushels per acre. I was so well pleased with them that last year I planted eight acres on the same kind of land, but owing to careless planting and very dry weather, had a very bad stand—not over one-half. I cultivated like corn with Thomas smoothing-harrow and plows. About the middle of November I turned in one two-year-old colt, twelve head of cattle, five old ewes for mutton and ninety hogs. In February I took off forty hogs and eight head of cattle, and believe there is enough left to keep the remaining fifty hogs until April 1st. At that time I will plow the ground, and if there seems to be enough left to seed the land, will let them alone until the plants are up and then give them one or two good harrowings. If too thick, will run the plow through them to thin them, and expect to have the cheapest lot of feed ever produced here."

"I will venture to say to all who are 'almost persuaded' to plant, to plant plenty of them. Why? Because the same land will produce double the amount of feed that it would in corn. You do not have to harvest them. The hogs will throw them out twice as fast as they can eat them. The cows, calves, sheep and horses, if allowed, will gather them. They will not be wasted; and if you want to see your milk cow smile and yield a full pail of milk, or want to hear your horse laugh, give a bucketful of artichokes."

**Sheep Shearing and Other Notes.**

Last week I thought I would go out and see what other people were doing and how they felt, and see what the country looked like. As I went north from Larned, I saw several very good looking crops of wheat, and people looking strange to those who are not acquainted with such soils, to see how mellow and moist the ground is after a continuous drouth of over eight months. I saw some very fine wheat on the dry Walnut, at Mr. Greer's, and several other places, and some fields entirely dead. Mr. Greer's sheep are looking well considering the fact that the lambs were dropped in February. The cold March winds froze the wheat, which was the main dependence, and chilled the lambs to such an extent that a great many perished. The clip will be lighter on account of the early shearing. I do not like the plan.

From there I went to Mr. C. J. Fry's, and found him cheerful and smiling as usual. His sheep are looking well and are gaining finely on the young grass and will turn off a good clip. Mr. Fry has fed no grain and cannot expect his sheep to do him justice.

From there, with Mr. Frye, we went to Ellis. Ellis has improved greatly in the last six years, and is a tidy little town with a good many nice stone buildings, and the people are as energetic, persevering and hopeful as any in Kansas.

From Ellis we went to Mr. A. S. Eten's, five miles east, to be present at the shearing festival, which was the most enjoyable and sociable gathering that it has been my lot to attend in a long time. There were about sixty present, and all seemed to enjoy the occasion to the utmost. Everything was conducted in such a free and easy, sociable and liberal way that every one seemed perfectly at ease and quite at home. Mr. Eten and his family appear to have the knack, naturally, of making their guests feel at home. They are blessed with a good many neighbors who seem to have the amiable qualities which make the neighborhood very agreeable.

The shearing commenced about 11 o'clock, with a six-year-old ram, General Grant, owned by Mr. Charles Smith; carcass, 157 pounds; wool 3½ inches long, 10½ months' growth, and sheared 23 pounds; and Mr. A. S. Eten's two-year-old ram, Kansas Chief, carcass 143 pounds, fleece 3½ inches, one year's growth, sheared 24 pounds; was raised by Samuel Jewett, Independence, Missouri. The company adjourned to the house for dinner. I will only say the dinner was a success on the part of the ladies, and could scarcely be equalled on such an occasion.

In the afternoon seven rams were shorn, all two years' growth, names and weights as follows: Challenge, gross 147 pounds, raised by Pain, Bridgeport, N. Y., length of staple 4

inches, fleece 27½ pounds; Constitution, raised by Jewett, gross 132 pounds, length of staple 3½ inches, fleece 25½ pounds; Matchless, raised by Pain, N. Y., gross 138 pounds, length of staple 4½ inches, weight of fleece 25½ pounds; Golden Fleece, by Jewett, gross 146 pounds, length of staple 3½ inches, weight of fleece 20½ pounds; Little Greezer, by Jewett, gross 139 pounds, length of staple 3½ inches, weight of fleece 25 pounds; Silver Horn, by Jewett, gross 143 pounds, length of staple 4 inches, fleece 25 pounds. All these young rams belong to Mr. Eten and are in fine condition, as well as his brood ewes and young sheep, and will turn off a fine clip. Most of his young sheep are bred from Colorado ewes by the best of Merino rams.

We visited the other Mr. Eten, (brother of the first), and Mr. Gifford, two miles further east. They have all fed light, but are practical sheep men and understand their business. Their soil is good for sheep; grass and water also good.

After a very pleasant and satisfactory visit, such as you can always have among sheep men, we "lit out" with the wind in our backs. We saw very little wheat on the way that would make anything of a crop, and I came back as well pleased with Pawnee county as anything I saw.

W. J. COLVIX.

**Poultry.**

**Selection and Management of Poultry.**

In response to the kind offer of Mr. F. E. Marsh, I will give your readers some ideas on the subject of poultry gathered from an experience in the business. In this, as in other matters, success is only reached by earnest effort in the right direction. We have derived considerable information from reliable works on the subject of breeding, managing, marketing, etc.; but we consider the knowledge gained by experience of more value than mere theory. The selection of fowls is of first importance and should be made with care. The healthiest and best fowls should be selected. Those under three years old are to be preferred. Old fowls are known by the hardness of the spur and the roughness of the scales on the legs.

If eggs are the only object, perhaps the Spanish or Leghorns, are to be preferred, but if the profit is to be derived from marketing also, the Brahmas should be selected as the best for general purposes. Next, we would mention the necessity of a healthy location and comfortable, well ventilated quarters of sufficient room for the number of fowls to be kept. Feed and water troughs of liberal capacity should be provided. Oats and corn ground together with the addition, occasionally, of cayenne pepper and salt in small quantities is the best food for fowls in winter, though a change is often found necessary.

For setting purposes, a hen of quiet disposition is best. The nest should be secluded as much as possible and should be made of chopped hay or straw, and partly filled with dry earth or powdered charcoal to preserve the temperature of the eggs in the absence of the hen. Select eggs that are smooth and of a uniform size. Very large or small eggs are objectionable. When the young chicks emerge from the shell, they should be allowed to remain in the nest till they are large enough to run about, when they should be removed to a coop, and fed a mixture of grated bread and hard boiled egg. The water trough should be shallow and frequently filled. In a few weeks green food should be given and an occasional feed of finely chopped meat as a substitute for worms and insects. Young chickens should be fed often and a little at a time. The feed should be thrown on the ground that the chicks may pick up gravel with it, to assist their digestion.

In Kansas, fowls are generally healthy, if properly managed. Cholera is the worst disease we have to contend with, and this is generally the result of ill-ventilated quarters and the lack of proper food. Prevention is better than cure, but if prevention has been neglected a cure may be usually effected by a change of location and diet, and the following mixture in one quart of corn meal and dampened for use: Alum, resin, copperas, lac-sulphur and cayenne pepper, each one-half ounce. As a preventative this should be given once a week. As a cure it should be given daily. This quantity is sufficient for fifteen or twenty fowls.

Plenty of lime and gravel scattered about the poultry yard will help to keep the fowls in a healthy condition. The perches should be sprinkled occasionally with sulphur, or carbolic acid diluted, to destroy the vermin. The poultry house should be supplied with proper ventilation, and fumigated twice a year, by closing up and burning sulphur inside, taking care to have the house well aired before allowing the fowls to enter.

We find that it pays to keep the very best and purest breeds of fowls and to take good care of them. To hope to be successful with poultry without making an effort to learn the habits and wants of fowls, and giving them a share of your attention and the care necessary to success in any other business, is to hope against our experience.

MRS. MARY THOMPSON.  
Omio, Kansas.

**Spriary.**

**Fastening Comb Foundations.**

FASTENING COMB FOUNDATION IN BROOD FRAMES—THE METHOD WE PREFER.

In the first place have the sheets cut the proper size for the frames used in the apiary.

For instance, if you use a frame the size of the American, viz.: 12x12 inches in the clear, the sheets of foundation should be cut so as to leave a space of about one-fourth inch on each side of the frame, and about one-half inch space between the lower edge of the foundation and the bottom bar, having it attached to the frame only at the top. Next cut out little strips, the length of the upper edge of the foundation, 1x½ inch square, using one for each frame of foundation. Now cut out a board three-eighths inch thick and just large enough to slip inside the brood frame. Now with a convenient sized board and a lot of three oz. tacks we are ready for business, except the strips which must be firmly screwed to the table near the edge next to the operator. This strip should be about the length of the top bar and about one inch in thickness. Now place the sheets of foundation on the table within easy reach, and your hive of empty frames by your side; now take a frame from the hive, lay it on the table with the top bar against the strip screwed to the table; place the three-eighth inch board inside the brood frame, having the board lay down on the table. Take a sheet of the foundation, lay it on the board, bringing it up against the top bar so as to bend about one-fourth inch of the upper edge of the foundation at right angles, and press it against the top bar firmly, placing one of the light strips mentioned above, flat side against the under side of the top bar, nail the strip firmly to the top bar with four of the three oz. tacks, pressing the frame against the strip on the table while nailing. Bring hold of the top bar with one hand and bring the frame to an upright position. With the other hand remove the board from inside the frame. Place the frame in the hive and remove and fill another, and so on until the hive is full, when it should be set away and another put in its place to be filled. After a little practice one can fill frames rapidly, and put in as above directed, are very firm. Care should be exercised that the comb does not hit against the side bars. The temperature of the room should be about 90° so that the comb will be pliable and not brittle.

F. A. SNELL.  
Milledgeville, Ill.

**Horticulture.**

**Pear Blight.**

The following remedies for this disease which has baffled all our pomologists and scientists to cure or discover the cause of, are furnished the *New York Times* by two correspondents, one from Pennsylvania, and the other from Ohio.

"The following is a remedy for pear blight that I have successfully used: Wherever the limbs are blighted, cut them off down to the sound wood, then take a brush and apply raw linseed oil to the cut ends and the bark of the trunk and main limbs; after doing this, coat the ends cut with shellac. This remedy has completely arrested the progress of the blight in all of my pear trees, and they are and have been for the past three years as healthy as ever. The application of oil will also destroy all kinds of vermin and their eggs."

"I have had a good deal of experience with pear blight, having lost many trees some 15 or 20 years ago, since then none when treated as follows: To a gallon of water put in a pound of copperas, and wash the bodies and large limbs of the trees. I usually add a little lime to thick; put on from the 20th of May to 1st of June; one application a year has proved a specific with me. If the tree is diseased, not more than half dead, cut off the diseased limbs a little below where diseased; wet cloths in the solution and hang over or otherwise fasten on the end of limb cut off. On larger trees where the bark is rough I shave off the rough part with a sharp ditching spade, so that the wash will get a firm hold; put on with a half worn split broom, (convenient as anything). The disease is evidently between the bark and wood, or in the new forming bark."

**Miscellaneous.**

The *Indiana Farmer* says this is the way it is done. What do the farmers think about it?

Our professional politician, who is always engaged in shaping and directing public opinion in favor of his party generally, and of himself in particular, just now shows unusual activity in consequence of the impending political campaign. During the day he frequents the street corners, village shops and stores, button-holding his former acquaintances, as they drop in, making anxious inquiry in regard to their health, crops and votes. Under the shades of night he meets in close communion with congenial spirits, bottled and otherwise, and as they term it, "set up the pins" for the next convention. And so well is this preparatory work done, that weeks before the convention is held, the ticket has determined on, and knows exactly the ticket that will be nominated. The delegates, the candidates, the managing officers, the speech-makers, resolutions, etc., are all selected and decided upon before the convention is called. The important preliminaries having all been arranged, these patriots issue a call for a convention of their party to meet and select candidates (?) for the various offices. The yeomanry respond, and a "large and harmonious convention" is held. Respectable and influential farmers are made vice-presidents of the convention by the score, put on committees on trivial matters, put anywhere and everywhere that it is likely to tickle their vanity or the managers, and also to bind them to sanction the work of the convention. Of course the cut and dried ticket, no matter how rascally it may be, is duly nominated.

Patrons of Husbandry.

Defense of the Grange.

Mr. Rose is ignorant of the expenses of the grange. Very many who object to the grange know very little if anything about it.

If there is any organization run cheaper than the grange, we don't know it.

The grange forbids the discussion of partisan politics within its gates, and rightly too. Political economy in all its bearings is not forbidden.

Education and Co-operation.

Nothing short of a sound grange education will ever enable the agricultural classes of America to free themselves from the unjust burdens which they have so patiently borne.

By co-operation, properly understood and correctly applied, we can remove nineteen-twentieths of all the burdens of which the farmers now complain.

Let education and co-operation be well studied and understood, as upon the advancement of these rest the results of the future.

At the last session of the South Carolina State Grange, held in February, Bro. J. N. Lipscomb presented an able address.

In all counties and sections wherever patrons and their officers have done their whole duty, the order flourishes and advances by steady progression.

The great mistake made by the officers of our order has been and is that there is no obligation when there is no salary.

California is happy, according to the reports of the Farmer, which entitles: "The season now before us opens with the most promising prospects ever before presented to the cultivators of the soil in California."

just here must be instituted or inaugurated any successful attempt to reform or revive our order or society and the civic and political condition of our state and country.

Modern Triumphs of Science.

It is curious to observe the uses to which, through the aid of chemistry, many substances, hitherto regarded as useless, are now advantageously applied.

The extraction of the brilliant aniline colors from coal tar, the once totally valueless waste product of the gas works, is another striking example of these chemical metamorphoses.

The aggregate amount of millions of tons a year, its bulk being nearly three times greater than that of the iron from which it has been separated in the fusing process.

Again this slag is converted into a silicate cotton, strongly resembling cotton wool, a substance obtained by turning a jet of steam on the molten slag.

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Mistakes and Prejudice of Religious and Temperance Journals.

Some good religious and temperance journals are making the mistake of declining to advertise a most valuable anti-intoxicating medicine, simply because it is called "Bitters."

A few of the many witnesses from religious and temperance sources are given below, who use, recommend and advertise Hop Bitters.

WHAT THE RELIGIOUS PRESS SAY. Chicago, Nov. 18, 1878.

Hop Bitters Mfg. Co., Rochester, N. Y.: Gentlemen—We do not allow anything in the line of Bitters to enter our paper that contains alcohol.

Temperance clergymen, lawyers, ladies and doctors use Hop Bitters, as they do not intoxicate, but restore brain and nerve waste.

NOT A BEVERAGE.

They are not a beverage, but a medicine, with curative properties of the highest degree, containing no poisonous drugs.

We are not in the habit of making editorial mention of patent medicines, but in case of Hop Bitters, feel free to do so.

Northern Christian Advocate, Syracuse, New York. Examiner and Chronicle, N. Y. Evangelical Messenger, Cleveland O.

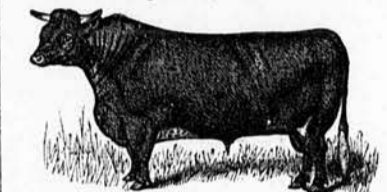
Pittsford, Mass., Sept. 28, 1878. Sirs—I have taken Hop Bitters and recommend them to others, as I found them very beneficial.

A MEDICINE, NOT A DRINK.—HIGH AUTHORITY. Hop Bitters is not, in any sense, an alcoholic beverage or liquor.

Washington, D. C., Sept. 4, 1879. Dear Sir—Why don't you get a certificate from Col. W. H. W., of Baltimore, showing how he cured himself of drunkenness by the help of Hop Bitters.

Advertisements.

PUBLIC SALE OF THE "PLEASANT VALLEY HERD" OF CHOICELY-BRED SHORT-HORN CATTLE!



Imp. Grand Duke of Kirklevington 2d (34072). My herd having increased beyond the capacity of my farm, I have decided to hold a public sale of about 75 head on the day named above.

THE AMERICAN POULTRY WORLD (Monthly) and THE AMERICAN POULTRY YARD.

Weekly. Both publications are exclusively devoted to Poultry. Published by H. H. STODDARD, Hartford, Conn.

Eggs, Eggs. From pure Light and Dark Brahmans. Write to F. E. MARSH, Manhattan, Kas.

HIGH CLASS POULTRY. C. C. GRAYES, Brownsville, Mo. (NEAR SENECA.) Breeder & Shipper.

EGGS FOR HATCHING. In Season. Send for Illustrated Catalogue, Free.

Eggs for Hatching. L. & D. Brahmans, Buff Cochins, Plymouth Rocks, Bourn & W. Leghorns, Pekin and Ayshbury ducks.

8 Varieties of New Seedling Potatoes. All of the best; hardy, prolific and good keepers.

EGGS! EGGS! From large, finely marked Light Brahmans, as good as the best, at \$1.00 for 13.

Bee Hives, Italian Bees. Eclipse, New American, Langstroth and Simplified hives complete or ready to mail.

Shannon Hill Stock Farm. Thoroughbred Short-Horn Cattle and Berkshire Pigs, bred for sale.

HOGS. THOROUGHbred POLAND-CHINAS and BERKSHIRE Pigs and Hogs for sale.

Southern Kansas Swine Farm. THOROUGHbred POLAND-CHINAS and BERKSHIRE Pigs and Hogs for sale.

RIVERSIDE FARM HERD OF POLANDS. Established in 1868. I have in my herd the sow that took first money and sweepstakes.

THE BOSS PUZZLE. The Game of 15. I have in my herd the sow that took first money and sweepstakes.

Brooders' Directory.

BLUE VALLEY HERD.—Walter M. Morgan, Hereford Cattle and Goodwill Sheep, Irving, Marshall county, Kansas.

B. BOTHWELL, Breckenridge, Mo., breeder of Spanish or Improved American Merino sheep of Hammond stock.

HALL BROS., Ann Arbor, Mich., make a specialty of breeding the choicest strains of Poland-Charlton, Essex and Berkshire Pigs.

JOSHUA FRY, Dover, Shawnee county, Kansas, breeder of the best strains of Improved Berkshire Hogs.

FOR SALE. Scotch and black & tan ratter pups, \$10 each; shepherd pups, \$15 to \$25.

MILLER BROS., Junction City, Kansas, breeders of Recorded Poland China Swine (of Butler county Ohio, strains); also Plymouth Rock and Brown Leghorn Fowls.

Nurserymen's Directory.

LEE'S SUMMIT and BELTON NURSERY, Fruit Trees of the best, and cheapest.

A. WHITCOMB, Florist, Lawrence, Kansas. Catalogue of Greenhouse and Budding Plants sent free.

MAMI COUNTY NURSERY, 11th year, large stock, good assortment, stock first class.

Dentist.

A. H. THOMPSON, D. D. S., Operative and Surgeon, Dentist, No. 189 Kansas Avenue, Topeka, Kansas.

JAMES A. BAYLES, Lees' Summit, Jackson County, Mo., Has the largest and best Nursery Establishment in the West.

Berkshires for Sale. I have a few choice pigs to spare. All eligible to record and as good as there is in the state.

BERKSHIRES. AT THE COLLEGE FARM. We offer for sale a few litters of very choice pigs.

SHORT-HORNS, (Young Marys), of both sexes. Address E. M. SHELTON, Supt. Farm, Manhattan, Kansas.

PUBLIC SALE OF Short Horn Cattle. AT KANSAS CITY STOCK YARDS, May 12 & 13, 1880.

The breeders of Jackson county, Mo., will offer at public sale, without bid or reserve, at the Kansas City Stock Yards, May 12 and 13, 1880.

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THE KANSAS FARMER.

E. E. EWING, Editor and Proprietor, Topeka, Kansas.

TERMS: CASH IN ADVANCE. One Copy, Weekly, for one year, 1.50

The greatest care is used to prevent swindling humbugs securing space in these advertising columns.

Subscribers should very carefully notice the label stamped upon the margin of their papers.

Post Office Addresses.

When parties write to the FARMER on any subject whatever, they should give the county and post office both.

Quarterly Report of Kansas State Board of Agriculture.

The quarterly report ending March 31st, has been on our table several days, but we have not had time to give it a careful examination earlier.

The main feature of the report, and the one constituting its chief value, is that part devoted to the swine business of Kansas.

The preceding quarterly report was largely devoted to the sheep and wool interest of the state, which are so rapidly becoming prominent.

Make Professors of Your Sons.

We do not mean professors of one or more of the occult sciences, of metaphysics, or of law, or of divinity, or any of the numerous book-worm closeted professorships, useful in their way, but not applicable or fitted for a majority of our farmer boys.

The wealthy capitalists of large cities are the men who dread the cities, for they know the danger and corruption that lurk in every street and alley, and fain would shield their families from these dangers by a home in the country.

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have been educated in practical agriculture, as engineers are educated to field work, and it is the design of agricultural colleges to fit boys for just such positions, who can take charge of a farm and apply a scientific agricultural education to the practical business of the farm.

It is no longer a question that education applied to farming will produce results far superior to a blind routine practice, and a few of the agricultural colleges of the country are adapting their course of instruction to achieve such desirable ends.

Every farmer in Kansas who can possibly do so, should send his sons to the state agricultural college to complete their education.

When colleges begin to graduate professors of agriculture who can go into the field and prove to an admiring world that they are worthy of the title which their diploma announces.

The Farmer's Friend and Guide.

The world daily grows more practical. We have on our table an annual bearing the above title published by Frank Harrison & Co., 206 and 208 Broadway, New York, quarto form, containing 200 pages, printed on stout paper, and bound in thick, flexible paper covers.

The new publication is really a farm scrap-book, composed of articles selected from the issues of all the standard agricultural journals of the country in the course of the last year.

The professional card of D. C. Bryant, M. D., surgeon and oculist, will be found in the FARMER this week. Dr. Bryant has made the eye and its diseases a special study in the hospitals of London and New York.

Will Mrs. A. B. Prescott, whose communication was published in the KANSAS FARMER of April 21st, please send her post office address to this office, as we have several letters awaiting her order.

We acknowledge receipt of complimentary ticket from the secretary of the Topeka Driving Park Association, Mr. C. R. Jones, to Spring Meeting, May 11th, 12th and 13th.

Composting Fertilizing Substances.

ED. FARMER: In your issue of April 14th, I find an article extracted from the organ of the Elmira (N. Y.) Farmers' Club, headed "Valuable Information." It contains sundry valuable practical suggestions that are worth reading.

The reader will observe that the above recipe specifies no quantities, or proportions of the four ingredients in said "excellent fertilizer."

instructions are of little value to those seeking information.

Let us examine the nature of the four ingredients used in the compost—investigate their respective value and see if they are all valuable, or as much so as others that might have been used at the same, or less cost.

Farmers who know nothing of chemistry, are liable in their attempts to mingle substances to produce a so-called compost of greater value than the uncomposted components, not only to perform useless labor, but they are also liable for want of a knowledge of the chemical action that the incorporation of substances of the nature of those mentioned, to produce a chemical action that will materially deteriorate the fertilizing qualities of some of the substances composted.

As evidence of the estimate he put on these substances as fertilizers, he would state that he experimented with the use of both, on a variety of crops, as early as 1838, and having fully ascertained their respective value, which was eight to twelve-fold more than farmers generally estimated them at that time, he instituted a means of securing the amount required of each, by purchasing them of near and remote neighbors.

I sent out a man at times when the sleighing was good, with a two-horse sleigh, the capacity of the body of which was fifty bushels.

When I commenced to collect I found it very difficult to find either housed unleached ashes or hen manure, as the ashes were usually thrown in heaps out of doors, and the fowls roosted in trees and the droppings were wasted.

The result was that I was able to get all that I required the second year at the price named, but some of the most wary visited my farm and saw the growing crops on which I had applied the substances purchased of them.

The farm on which I used these fertilizers is located in Dutchess county, New York. I sold the farm and removed to a farm which is now a district of the city of Philadelphia, Pa. I have never heard of any sales of these products in that region since I left.

Before I left New York, I had been conducting a farm school and experimental farm for three years, and had at the time of my removal fifteen pupils, who were paying me \$150 per annum and their labor, for board instruction. I removed my school, which was called the Dutchess Agricultural Institute, to Mount Airy, Germantown, Pa., now Germantown District of the city of Philadelphia, where I rechristened the school the Mount Airy Agricultural Institute.

Germantown was an early settled district, and the settlers had imported an old German custom of providing deep, spacious privy-vaults, so that they might serve indefinitely, but some of them had been in use over one hundred years, and fortunately for me the borough had recently passed an ordinance that such vaults as the inspector condemned as a nuisance, must have the contents removed or be filled by a time.

etc. I obtained the coal ashes for the handling, and had some hauled to my rude laboratory for a trifle. I found no difficulty in fixing the offensive odors of the night-soil, nor in producing a dry compost of a convenient texture for handling and applying to crops.

To be brief, I had, with little boring, "struck it," and had the materials for growing crops to pay the thousand dollars' annual rent which I had agreed to pay, for five years, for seventy acres. The records of the Philadelphia County Agricultural Society attest that it awarded prizes for the sundry crops of the Institute farm, the credit of which was largely due to the *poudrette* above described, with which they were nourished.

It pays to learn how to obtain, how to prepare, and how to apply good, cheap food to farm crops, and the prizes that this knowledge secures is a notable part of the return, which, in the form of medals, I find that my grandchildren hold as sacred mementoes.

To return to the method practiced by the member of the "Elmira Farmers' Club," in composting, I would say, 1st, that dry clay would have been much preferable to the "sand and coal ashes," which he says he used in his compost. It is not necessary that the clay should be pure clay. I have always obtained what I required for such purposes by selecting a clayey portion of a wagon-road, in a drought, (which I am led to believe that Kansas farmers will not be obliged to import), and scraping up the dust on the road-bed into heaps, and hauling and storing it against a day of need.

I paved with smooth, flat flags a portion of my fertilizer shed, and on it I pulverized the droppings with flails. Then I added two parts of dry clay to eight of the pulverized droppings, and the two were well incorporated, when I added one bushel, or one hundred pounds of finely ground plaster, and one bushel of finely ground salt. When these were well mixed, I found I had a compost which benefited all crops to which I applied it, but it was too caustic to apply in the hill on seeds or potatoes.

The ammonia of the droppings is fixed or rendered involatile by the plaster, which is a sulphate of lime. The sulphur unites with the ammonia in the droppings, which is in the form of a carbonate of ammonia, a volatile form, and changes it to a sulphate of ammonia, an involatile, in which form it is more valuable as plant food and equally available. Then the salt is hygroscopic, i. e., it has the quality of absorbing vapor or water from the air or earth, if in contact with it, and it being, when finely pulverized, very soluble, it soon charges the earth with its saline property to a considerable depth, which gives to it the hygroscopic quality, one of special value in a soil in times of drought.

It may be of interest to readers if I state, at this juncture, that during the twenty-two years that I was before the country as a counsellor in agricultural practice, I often prescribed the application of common salt on a great variety of crops, and with satisfactory results. The most marked effects, however, were observed on land lying more than five miles from the sea coast. I have applied from five to fifty bushels of salt per acre with good effect.

I found by a series of experiments with the use of salt, that when properly applied it possessed a property that was vastly more valuable than its fertilizing one. I refer to its distinctive effect on vermin in the soil, such as grubs, or cut-worms, etc. The *modus operandi* when such effect was the aim, was to have the salt ground fine, and to apply it on the surface of a sward inverted for corn, immediately after plowing. Fifteen bushels per acre, evenly applied, I found sufficient to destroy the vermin named; and I have left portions of fields without the application, and the corn was nearly all destroyed on the unsalted land, while on the salted portion, lying side by side, no marks of the work of the insect were to be seen. I have also applied the salt on corn land, as above, in which there proved to be few, if any, of these destroyers in the soil, and by applying different quantities, and leaving belts without any, I found that ten to twenty bushels of salt per acre, in some instances, increased the product from fifteen to twenty-five per cent, but in others the effect was less marked, but I have no record of an application of ten bushels per acre where a considerable increase of crop was not attained.

I applied the salt on a great variety of geological formation, with good effect on all, but with the best result on sandy soil, and in dry seasons. Salt, to be most beneficial, should be applied on the surface, that it may, as it dissolves, charge the entire soil.

Both wood and coal ashes contain, when fresh, more or less caustic lime, and when applied to hen-droppings in that state, are injurious, as the lime unites with the ammonia, producing a volatile gas, which, as already stated, is liable to be lost. A proper proportion of the gypsum mixed with the ashes and droppings will prevent such loss.

The quantity of gypsum required in each case may be readily determined by simple qualitative experiment. It is not judicious to use any more gypsum in the compost than is required to produce the chemical effect intended. I have experimented very extensively with plaster as an application to farm crops, varying the amount applied from 100 pounds to 2,000 pounds per acre, and the crops attained with the use of 150 pounds per acre, matter what the crop was, was as well as if more liberal application was made.

generally practiced, and in which large sums of money are annually squandered, but the number of the pages of my manuscript warns me that I must close. I may, however, make it the subject of a future paper.

I will only say, in conclusion, that all plant food available on the farm, is the owner's stock in trade, and all who allow it to go to waste, will be apt, sooner or later, to learn the true nature of a mortgage.

J. WILKINSON. Brooklyn, N. Y.

Good Words.—State Horticultural Society, Etc.

For the thirteen years that I have known the KANSAS FARMER intimately, there has never been a time, at this, the busy season for farmers, when the correspondence has been so extensive and practical—therefore, valuable, as it has during the issues for the present month. The careful editing of the same, too, speaks well for the judgment of the editor. Well, what of it? Simply this: It indicates that the coming farmer will be more of a farmer in intellectual stature than his father was, is taking a more active interest in his calling, and shows that the first gray glimmer of dawn is breaking upon his mind that farming is a business.

A correspondent voted for the proceedings of the State Horticultural Society to be published in the FARMER. I second the motion. But let me whisper anew about that same State Horticultural Society that all your readers may not know as well as I do. They are a very dignified body and rare, very rarely, grant favors without the asking. There was a time in the history of the state when the struggle was sharp and the battle warm between the State Horticultural Society and the State Agricultural Society, to see which should be the kite and which the tail, and from certain personal reasons not necessary to speak of, because they have passed away, the State Horticultural Society imagined, and it was only imagination, that the FARMER aided and assisted the State Agricultural Society and its successor more than it did the former, but it was a mistake. There never has been a time before nor since when the proceedings of the Society were so fully published and extensively read as during the principal period of this antagonism, viz: 1870-4, as back files of the FARMER show, and as C. H. Cushing, the stenographer of the FARMER, then, can testify. But we farmers want to see the reports of the State Horticultural Society, and the only way to get them, Mr. Editor, is for you to courteously indite a postal card to Mr. Brackett, asking to be advised of the time and place of the summer meeting, and when the time arrives, start a reporter with his gipsack, and let him follow the crowd.

I wanted to discuss (if so minded you can leave off the first three letters of that last word, but not to be charged to my account, remember) some of the many so-called rules for measuring corn in the crib. They are all humbugs, and the old standard measure of two cubic feet to the bushel, the worst of the lot for the buyer and the seller, too, if he has any conscience. The best measure to use by that I have ever found, is the following: Allow 4,000 cubic inches for a bushel. Find the cubic inches of a crib, box, or bin, and divide by 4,000. The answer will be in bushels. The idea is it takes pretty near 2 1/2 cubic feet to make a bushel of our average western corn.

Corn planting pretty well along. Season two to three weeks in advance of the average. Wheat two-thirds of a stand. A. G. CHASE. Millwood, Worth Co., Kansas.

The above complimentary notice coming from a former editor of the FARMER, we cannot but feel highly flattered, and the tribute no personal acquaintance enhances the tribute. We feel that some kind spirit has created a friendly bias in our behalf which we hardly merit, but that rather we owe whatever measure of success we have achieved, to the extreme kindness of our numerous correspondents, who have placed us under obligations which our most industrious efforts will not be able to requite. Many thanks to Mr. Chase and others for aid and encouragement in the new field which is opening up and revealing glimpses of the bright beyond for the farmers. To those who have been permitted to look through the "gates ajar," the future of the agriculturist in that mental view is not less fair than the promised land appeared to Moses as he surveyed the plains of Palestine flowing with milk and honey beyond the Jordan. May the present generation not be shut out from the promised enjoyment, as the leader of Israel was.

Important to Book Agents.

Dr. Manning's long looked for teaching Stock Doctor and Live-Stock Encyclopedia, with 1,000 pages, 400 illustrations and two charts, is announced by N. D. Thompson & Co., publishers, at St. Louis, Mo. It covers the subjects of Horses, Cattle, Sheep, Swine and Poultry, in health and disease, and is a work of such practical character and value as to be in great demand. A rare chance for agents.

Go to Skinner, the "Old Reliable" Shoe Dealer of Topeka.

Piles! Piles! Piles!

Do you know what it is to suffer with Piles! If you do, you know what is one of the worst torments of the human frame. The most perfect cure ever known is Kidney Wort. It cures constipation, and then its tonic action restores health to the diseased bowels, and prevents recurrence of the disease. Try it without delay.

An Extended Popularity.—Each year finds our Bronchial Troches in new localities.

NICKERSON, Reno Co., April 18.—200 miles SW. of Topeka. The seasons for 18 months have been more unfavorable here than I have known for 15 years.

Regulate the Secretions. In our endeavors to preserve health it is of the utmost importance that we keep the secretory system in perfect condition.

Winter Butter. Let a farmer divide his white winter butter into two lots, while yet in the form of cream, and for one make use of Perfected Butter Color.

Timely Caution. Genuine Hop Bitters are put up in square paneled, amber-colored bottles, with white label on one side printed in black letters, and green hop cluster, and on the other side yellow paper with red letters; revenue stamp over the cork.

Greater than Gold. "I value Marsh's Golden Balsam far greater than gold. It has cured me of incipient consumption, and my child of a terrible cough."

Good Evidence. When such men as Rev. Dr. Rankin, Rev. Dr. Harvey, Prof. Green, Dr. Bartine, Col. John K. McChesney, E. W. Neff, and a host of others equally trustworthy, certify over their own signatures to the marvelous efficacy of Warner's Safe Kidney and Liver Cure, it is time to dismiss doubts on the subject.

From the "Old Salamander" Drug House, Chicago, Ill., Jan. 12, 1880. Messrs. H. H. Warner & Co., Rochester, N. Y.: Gentlemen,—We trust our order will reach you in season to be promptly filled.

The Recipe for Gilt-Edge Butter Maker was obtained from one of the most extensive dairy farmers in Ireland, noted for the excellent and superior keeping qualities of his butter, which was eagerly purchased by London dealers for export to India, where the warm climate puts butter to a very severe test.

Collins, N. Y., Feb. 19th, 1879. Gentlemen—We churned one gallon of cream to-day at a temperature of 56 deg., using your Gilt Edge Butter Maker. Time of churning, 15 minutes—result, 4 1/2 pounds of butter. Color good. As we have not previously weighed our butter, of course we cannot tell whether there is a better per cent. or not, but appearances indicate it, and the quality is at least two cents per pound better. Yours &c., M. E. WILBUR, Prop'r of Collins Creamery.

Wilbur's Compound of Pure Cod-Liver Oil and Lime—The advantage of this compound over the plain oil is, that the nauseating taste of the oil is entirely removed, and the whole rendered entirely palatable. The offensive taste of the oil has long acted as a great objection to its use; but in this form the trouble is entirely obviated.

Always buy "The Best" at Skinners. Mr. T. K. McGlathery of Topeka, has made arrangements to have his horses, Royal

A Good Piano. Frank Leslie's Illustrated Newspaper says: A good piano at a fair price is one of the wants of the times. An instrument that is durable, that is substantially made, and has all those qualities of tone which make a first-class piano, can be had from the Mendelssohn Piano Co., New York, from \$150 to \$400.

The McKay Bros. are going to start a large fish, oyster game, poultry, butter and egg depot in Deaver, Colorado, early this fall. The farmers in and around the vicinity of Topeka will find a cash market for all kinds of poultry, game, butter, eggs, &c., at McKay Bros. fish, oyster, game and poultry depots, No. 249 Kansas Avenue, near 8th avenue, South Topeka, and No. 90, Kansas Avenue, near Laurent street, North Topeka, for which the highest cash price will be paid as they will depend principally upon Topeka to furnish their Denver market with poultry, butter, eggs, &c.—North Topeka Times.



Mrs. Wise—No doctors' bills for the past year, and less than five dollars for medicine, and eight in the family.

Mrs. Jones—Would that I could have a like experience with my family. Mrs. Wise—You can, if you will make Simmons Liver Regulator your household remedy.

"I have used your family medicine, called Simmons Liver Regulator, for several years, and find it the best medicine for a family to keep in the house. I can eat anything I wish at night, and take a dose after it, and sleep as sound and sweet as ever. I have not spent one dollar for my family for medicines in five years, only for your regulator, and must say it does all it says it will. J. A. NELSON, Merchant, Macon, Ga."

8 and 9. Eight and nine per cent. interest on farm loans in Shawnee county. Ten per cent. on city property. All good bonds bought at sight. For ready money and low interest, call on A. PRESCOTT & CO.

PRESCRIPTION FREE. For the speedy cure of Seminal Weakness, Loss of Manhood, and all disorders brought on by indolence or excess. Any Druggist has the ingredients. Address DAVIDSON & CO., 78 Nassau St., N. Y.

Markets.

TOPEKA MARKETS. Poultry and Game. Corrected weekly by McKay Bros., 294 and 92 Kansas Avenue.

Hide and Tallow. Corrected weekly by H. D. Clark, 135 Kansas Ave.

Retail Grain. Wholesale cash prices by dealers, corrected weekly by Edson & Beck.

Butchers' Retail. BEEF—Sirloin Steak per lb. 12 1/2

Grocers retail price list, corrected weekly by J. A. Lee. Country produce quoted at buying prices.

St. Louis Wool Market. The New Clip comes in slowly, yet a steady if slight increase in receipts is noticeable; and with the larger offerings has come a weakening in price.

Chicago Wool Market.

Markets by Telegraph, May 4.

New York Money Market. GOVERNMENTS—Dull and somewhat weak. RAILROAD BONDS—Irrregular. STATE SECURITIES—Steady.

St. Louis Produce Market. FLOUR—Dull; fancy, 5 5/8 asked; choice, 4 9/8 bid; cash, sales, 4 90 to 4 30; butchers to select, 4 20 to 4 25; receipts 11,900; shipments, 1,900.

St. Louis Live Stock Market. HOGS—Lower; fairly active; Yorkers, \$1 15 to 4 25; bacon, \$1 80 to 4 30; butchers to select, 4 20 to 4 25; receipts 11,900; shipments, 1,900.

Liverpool Market. BREADSTUFFS—Market quiet. FLOUR—10s to 12s 6d. WHEAT—Winter, 9s to 8d 10s 6d; spring do 9s to 10s.

Kansas City Produce Market. WHEAT—Receipts, 1,600 bushels; shipments, 4,710 bushels; in store, 173,690 bushels; market quiet; No. 1, \$1 00 bid; No. 2, 95 1/2c bid; No. 3, 85c.

Chicago Produce Market. FLOUR—Dull and nominal. WHEAT—Fair demand and lower; No. 1 spring 1 1/2c; No. 2, 1 1/4c; No. 3, 1 1/8c; No. 4, 1 1/8c; No. 5, 1 1/8c; No. 6, 1 1/8c; No. 7, 1 1/8c; No. 8, 1 1/8c; No. 9, 1 1/8c; No. 10, 1 1/8c; No. 11, 1 1/8c; No. 12, 1 1/8c.

London Market. A cable to the Chicago Journal says: CATTLE—Strong and active. SHEEP—Stronger; good clearance.

Kansas City Live Stock Market. CATTLE—Receipts for 48 hours, 550; shipments, 438; market quiet, with a demand chiefly for light butchers steers; native shipping steers, 4 00 to \$4 60; butchers' steers, \$3 50 to 4 00; stockers and feeders, \$3 00 to 3 75; corn fed Texans, \$2 70 to 3 25.

Chicago Live Stock Market. HOGS—Receipts, 15,000; shipments, 4,000; market steady; firm for all; light bacon, 4 85 to 4 65; common 4 15 to 4 45; mixed packing, \$4 20 to 4 40 heavy \$4 45 to 4 70.

Denver Market. FLOUR, GRAIN AND HAY. HAY—Upland, 23 to 25; second bottom, 21 to 22; bottom hay, 18 to 20.

New Advertisements. Our readers, in replying to advertisements in the Farmer, will do us a favor if they will state in their letters to advertisers that they saw the advertisement in the Kansas Farmer.

Sweet Potato Plants. Unlimited supply. 7 Best Varieties, boxed and sent to your nearest express office at \$2.00 per 1,000. Special rates on large lots. Send for list. E. C. CHASE, Glenwood, Johnson Co. Kansas.

WANTED. To contract for 600 Ewes, two years old seven

A Very Valuable STOCK FARM.

We have for sale a section of land, seven miles from Kinsley, Kansas, one mile from R. R. Depot, near Nettleton, which is improved by an elegant two story house with stone basement, with piazzas on three sides; a fine barn 30x40 feet, two wells and wind mills, tight board corrals, with ample free range and running water.

GREAT CLOSING OUT SALE OF THE "LINWOOD HERD" OF Short-Horn Cattle AND Southdown Sheep, AT Kissinger, Pike Co., Mo., TUESDAY, MAY 25th, 1880.

Having decided to change my business, I will sell my entire herd of Short-horn Cattle—50 HEAD, 11 Bulls and bull calves, the remainder Cows and Heifers, mostly young.

Some of the young things are first-class show animals. My herd was not in the show ring in 1879. Up to that time, since 1868, my herd, and the best bred, Kissinger & Co., and Pickett & Kissinger, had taken over \$40,000 in prizes.

WORLD FAMOUS WOMEN. Types of Female Heroism, Beauty, and Influence, from the Earliest Ages to the Present Time. Magnificently embellished with Full-page Steel Plate Engravings. Agents Wanted.

Cheese Factory For Sale Cheap. We have for sale very cheap and all in splendid condition 1 patent Colt Heater, three hundred gallon vat, Cured Drain or Hot Backed Screw Press and Hoops, Milk weigh can and Scales, Force pump and hose, when jump all complete with necessary fixtures and fittings. Address, FORT SCOTT FOUNDRY, Fort Scott, Kansas.

Plants, Plants. Sweet Potato Plants. Grown in the open air. Variety EARLY RED BERMUDAS but mostly YELLOW WATERBURY, the standard. Also Cabbage and Tomato Plants sold at very low prices. Address, J. V. CARTER, Emporia, Kas.

THE VICTOR CANE MILL AND COOK EVAPORATOR, Which has been planted in great quantities the demand for machinery will be immense, and it stands those in hand who wish to make a success at molasses and sugar making to procure their MACHINERY before the rush comes on. BUY ONLY THE BEST that can be procured. All successful sorgo raisers will tell you to avoid cheap machinery. We are Western Headquarters for

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AGAIN, Bartholomew & Co

Cheviots, Shirts, Jeans, Tweeds, Cottonades, BOY'S WEAR.

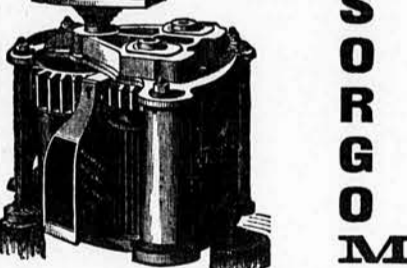
Muslins, Shirts, Calicos, Gingham, Tickings, Dress Goods, Black Alpaca, Black Cashmeres, Spring Dress Goods, Lawn, Percales, White Goods, New Spring Hosiery, New Spring Gloves, New Kid Gloves, Parasols, Embroideries, Corsets, Laces and Buttons, Mens' Shirts, Mens' Overalls,

BARTHOLOMEW & Co's. Cheap Cash Store. 177 Kansas Avenue, TOPEKA - - KAS 120 Acres in Cultivation.

George Achelis, West Chester, Pa. Sells Crab Apple Trees and other Fruit trees; Evergreens and other ornamental Trees; Shrubs, Vines, etc. Prices reasonable. Correspondence solicited.

D. C. BRYANT, M. D., Surgeon and Oculist. Having had several years experience in an extensive private practice, and having spent the past year in the large hospitals of New York and London, making diagnoses of the eye and surgical diseases a special study, am prepared to treat such cases, as may come under my care, according to the BEST and most approved methods.

Cross Eyes straightened. Cataracts removed. Near and Far Sight, and Astigmatism corrected with proper glasses, etc., etc. Office 228 Kansas Avenue, over Geo. B. Palmer's Residence, 378 Harrison street. Office hours, 9 to 12 A. M., 2 to 4 P. M.



SORGO Machinery: Give your orders early. Do not wait until the season for making is here.

On account of the great interest created by the introduction of THE EARLY AMBER

THE VICTOR CANE MILL AND COOK EVAPORATOR, Which has been planted in great quantities the demand for machinery will be immense, and it stands those in hand who wish to make a success at molasses and sugar making to procure their MACHINERY before the rush comes on. BUY ONLY THE BEST that can be procured. All successful sorgo raisers will tell you to avoid cheap machinery. We are Western Headquarters for

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Literary and Domestic.

Make Your Own Pies.

MAUD MILLER.

How well we remember, the fair days of yore, The old farm-house kitchen, the bright painted floor, Those days of our childhood, where mother's dear face Illuminated each corner about the old place.

These pies of our boyhood! we've not seen them since, The custard and pumpkin, the apple and mince, So juicy and deep, and so mammoth in size; Pray, would you not dear mother, she made her own pies.

Then pretty, fair housewife, with home bright and neat, Your kitchen so tidy, your household complete, What happiness beams in your fair sunny face; With snowy white apron that adds such a grace, You make your own bread, that is spongy and white, You "put up" preserves, and make cake that is dark and light.

Would you fashion a dainty your household would prize? Then pretty, fair housewife, pray make your own pies.

And dear little maiden, expecting to wed, Now don't pass this by with a toss of your head; If your husband you'd please, all the days of your life, And make him the sweetest and best little wife, Pray, would you be healthy and would you be wise, Why, dear little maiden, then make your own pies.

Woman's Brain.—How it is Being Deaden and Destroyed by Fashion.

Dr. Richardson is one of the most eminent physicians of London, and his opinion on any subject connected with health or disease is worthy of respect. When, therefore, he announces that the "corset deadens the mental capability of women," he furnishes a new and powerful argument against that almost universally-worn article.

There has been, so the most profound dress-makers assure us, a wonderful progress in the construction of the corset during the present century. Sixty years ago it was modeled in shape and method of construction upon the common barrel of commerce. It consisted of a series of boards or staves, set on end around a nucleus of girl, and held together by cordage instead of hoops. This remarkable structure was in general use in New England in the days of Puritanism, and undoubtedly was closely connected with the general prevalence of austere morality in the Puritanic community. It constituted an impermeable defense against fires and it chilled the ardor of the worldly-minded lover, who found no delight in the hard contact of wood and coat sleeve. The New England small boy would sometimes borrow the corset of an affectionate sister prior to a personal interview with his father in the woodshed, and there is no doubt that, when worn abnormally low, it afforded efficient protection against the parental rod. It was, however, a source of great discomfort to the legitimate wearer, and the unyielding nature of the stiff, straight boards of which it was composed effectually prevented it from coming into use outside of New England, except in isolated and bony cases.

To the wooden corset succeeded the whalebone corset, which was introduced into the country in the year 1831. [See "Smithsonian Reports," volume 10, section 39.] The characteristic feature of this corset was the substitution of whalebone for wood. Unquestionably this was an improvement, since the whalebone was to some extent flexible. Experience showed, however, that the whalebone was liable to break, and had to be frequently renewed. In fact, the wearer was obliged to furnish herself a new set of "bones," as they were technically called, once every six months. A still graver fault was the tendency of an occasional bone to work upward and outward. Accidents rivaling in horror those formerly caused by railway "snake bends" became painfully common, the young husband who had succeeded in passing through the period of courtship without sustaining an injury in the cheek or eye was exceptionally fortunate.

The whalebone corset was succeeded in about 1840-42 by the steel corset, which has since been frequently and greatly improved. The steel "bones," when first used, sometimes broke and pierced the woman in vital parts of her person, but accidents of this kind have now become entirely obsolete. Of late years it is understood that the corset has been modeled so as to fit the figure, at least to some extent, and hence the usual physiological argument against the corset has lost much of its force. There is, however, an obvious difficulty in obtaining the exact truth in this matter, since there is a great and manifest difference between the archaeological and contemporary investigation. The old assertion that the pressure of the corset forced the ribs inward, or that they ultimately emerged at the back, was true only of the board and whalebone corsets, and the modern dress reformers, when they meet in convention, rarely denounce the corset, and prefer to spend their energies in attacking other articles of dress.

Dr. Richardson's assertion will have the effect to revive the war against the corset. It must be confessed that the unlearned man will fail to see the connection between the tight lacing and the action of the brain. He will say that the corset compresses only that part of the human figure known to anatomists as the region between the fourth and eighth rib, counting downward from the neck, and that, inasmuch as the brain is not situated within this region, it cannot be affected by pressure applied

tion of the brain, and, consequently, torpidity of the functions.

It would be easy to show that no woman of brilliant intellect has worn corsets. In support of this assertion, Sappho and Aspasia, George Sand and George Eliot, and other eminent women might be cited, but it is sufficient to refer to our own time and country. The long and brilliant career of Miss Susan B. Anthony has been marked by her consistent and public repudiation of the corset in every form, and Mr. Stanley Matthews states that not only has he never worn a corset, but that, in his opinion, it is an immoral and injurious affair. The example afforded by the lives of two eminent Americans should be brought to the attention of Dr. Richardson, as affording a strong confirmation of his theory that where we find great mental power among women of whatever age we also find a total absence of corsets.—New York Times

Terms and Materials Used in Needle-Work.

Tabaret.—A stout, satin-striped silk used for furniture.

Tabinet.—A name for poplin of rich character, the warp of silk, weft of wool. So called because the surface is "tabled" or watered. Sometimes a pattern is introduced into it. It is chiefly used for window curtains and other upholstery purposes.

Tabby.—A coarse kind of taffeta, thick, glossy, and watered. In silk this kind of material would be called "moire."

Tacking.—(From the Italian Attacare).—A term used in needlework to designate small stitches taken through two pieces of material at wide and regular intervals. It is most securely effected by working from left to right. Designed to keep the two portions of stuff in place preparatory to their being permanently sewn together.

Tailor's Twist.—A coarse silk thread made of several together, wound on reels, of two ounces each. The numbers used by tailors run from one to eight. There are small reels containing a single thread of twelve yards, equivalent to one yard of twelve threads. By this plan dealers can keep a larger supply of shades at a smaller cost.

Tamis.—A worsted cloth, expressly made for straining sauces, and sold at oil shops.

Cambour Cotton, made up in skeins, is sold in half bundles of five pound each, and used by tailors for basting. It is to be had in balls, also. The numbers are 12, 14, 16, 18, 20, 24, 30, 36, and 40.

Tambours.—Sprigged and spotted needlework muslins, of widths from 27 inches to 36 inches, and in lengths of 12 yards. They are semi-transparent. The needle has a small hook. Tambours are sometimes embroidered with gold thread.

Tambour Stitch (otherwise known as "Chain Stitch").—The work executed in this stitch is a very old style of embroidery, of which fine specimens are to be seen. The modern method of working differs from the ancient; the latter style was to draw the thread through the material from the wrong side by means of a hook, and so looping it.

Tamplings.—These stuffs, like bunnings, are made of worsted; yet, unlike the latter, they are plain, highly glazed, and chiefly used for upholstery. They are a kind of Scotch caulet, and are otherwise called "durants." They are twilled, with single warps, and are usually coarser than twilled bombazets. Their width varies from 12 inches to 36 inches, and are mostly used for women's petticoats.

Tapestry.—Embroidery with colored wools, silks, and sometimes enriched with gold thread; anciently worked by hand with a needle, and in later times by the loom.

Tapestry Stitch.—The ancient "Opus plumarium," otherwise called "feather stitch." They lie lengthwise close together, and overlap one another, two threads of the material being crossed in the length of the stuff, and one in the width.

Tartan.—A thin, gauze-like muslin, much stiffened; so called from Tarare, in France, the chief center of the manufacture. It is much stiffened, and may be had in various colors. It is much used for evening dresses.

Tartarium.—A fine cloth made in Tartary, and is mentioned in the wardrobe accounts of Edward III, and often named amongst the expenses of tournaments.

Tatting.—This work (otherwise called *frivolite*) is done with fine crochet cotton, and by means of a small shuttle, and a strong pin, attached by a chain to a ring, which is worn on the left thumb, the shuttle being held in the right hand. The shuttle is passed round the extended fingers of the left hand, and brought again between the thumb and finger of the thumb and first finger, the shuttle slipped under the thread between the first and second fingers, drawn out quickly, being kept in a horizontal line with the left hand. While the thread is held stretched by the shuttle, the second finger of the left hand should let the loop under it slip, thus securing the cotton; and when a number of stitches are finished, they should be drawn together closely and so form a loop, which latter are united one to the other by the little picots introduced to form the purledge, round each loop. They are made by twisting the cotton round the pin, and holding it while forming a stitch. These loops are joined by making the picot in the first loop, where the connection should be made, and on reaching the corresponding place in the second loop the worker must draw the thread through the first picot, and pass the shuttle through the loop just made.

factorily into constant use than that which enable one to skillfully eke out scant materials and remodel dilapidated garments that are almost as good as new.

Keeping the Teeth Clean.

Mr. G. A. Mills gives some sensible advice about cleaning the teeth. While there is, he says, a general use of tooth-brushes by the people, there is, also, not uncommonly an abuse of them for want of proper instruction. It is getting to be understood by both dentists and patients more than formerly, that a crosswise brushing is not wise, but that the upper teeth should be brushed downward, and the lower teeth upward. It is a common mistake to brush thoroughly the cheek and posterior surfaces of the lower front teeth. "I am sure," said Mr. Mills, "that nothing like an adequate amount of care is given to this service. It cannot be too strongly impressed on the minds of the guardians of children that the practice of brushing the teeth thoroughly should be begun as early as possible. Straight brushes are utterly impracticable on the surfaces to which I have referred as the ones most neglected. Curved brushes with a tuft end, bud-shaped or convex are the best. There are several efficient forms."

The faithful use of floss silk between the teeth ought to be earnestly recommended; also the quill toothpick. The wood toothpicks so generally furnished at public eating places are a source of much evil to the soft tissues between the teeth. All kinds of metallic toothpicks are objectionable, though it is the practice of some dentists to commend them to their patients. The value of a decided polished surface of the tooth becomes very apparent to those who have had the operation performed; the facility with which such teeth can be kept clean is evident, and, although this condition may have been secured at considerable expense, yet it is an investment that will pay a good rate of interest. Few dentists have much idea of the beautiful polish that a human tooth will take. Many teeth are capable of a great improvement in this direction, which are now a decided detriment to what might otherwise be a pleasing face. The general idea among the people is that interfering with the surface of the teeth destroys the enamel, but this is a popular error.

Eye Sight.

Milton's blindness was the result of overwork and dyspepsia.

One of the most eminent American divines having been for some time compelled to forego the pleasure of reading, has spent thousands of dollars in value and lost years of his time in consequence of getting up several hours before day and studying by artificial light. His eyes never got well.

Multitudes of men and women have made their eyes weak for life by the too free use of the eye sight. In view of these things, it is well to observe the following rules in the use of the eyes: Avoid all sudden changes between light and darkness.

Never begin to read, or write, or sew for several minutes after coming from darkness to a bright light.

Never read by twilight, or moonlight, or of a very cloudy day.

Never read or sew directly in front of the light, or window or door.

It is best to have the light fall from above, obliquely over the left shoulder.

Never sleep so that, on the first waking, the eyes shall open on the light of a window. Do not use the eye sight by light so scant that it requires an effort to discriminate. Too much light creates a glare, and pains and confuses the sight. The moment you are sensible of an effort to distinguish that moment cease and take a walk or ride.

As the sky is blue and the earth green, it would seem that the ceiling should be of a bluish tinge, and the carpet green, and the walls of some mellow tint.

The moment you are tempted to rub the eyes that moment cease using them.

If the eyelids are glued together on waking up, do not forcibly open them, but apply the saliva with the finger—it is the speediest diluent in the world—then wash your face and eyes in warm water.—Exchange.

This has been going round for about ten years, and its ownership, we guess, is lost; but it is good enough to go on indefinitely.—Phrenological Journal.

Feather Work.

Ladies who live in the country and raise poultry would find it a source of amusement if they would save the feathers of hens, roosters, peafowls, etc., and form them into feather dusters or flowers for winter bouquets. For the latter, begin by making a card box with many divisions; then with sharp scissors trim all the superfluous parts, and shape the feather into an oval leaf, leaving only a short stem. Prepare a good many in this way, carefully cutting away a part of the midrib to render it flexible. Have some fine wire cut into short pieces and some strands of floss silk, and taking a piece of wire, attach firmly to one end several stiff fibres or a few bits of down; next take one of the leaves, and bending it gently outward, fix it close to the tuft by winding the silk tightly round the wire; repeat until you have six or eight leaves around the stem, and finish your flower by winding the whole stem with green or brown floss. Short goose feathers form lovely white roses by arranging several rows of petals

duck. The breast of peafowls give us exquisite blue flowers, and the different shades of gray and wood color found in the plumage of the common hen will surprise those who have not made a study of the art of feather flower making. For those who can see no beauty in quiet shades there are the "family dyes," which will color feathers prettily, by first wetting well in hot water, then dipping into a solution of red or blue, with the addition of a small bit of alum to set the color.

The plumage of birds of all kinds (and of the wild duck in particular) will vary your collection, and form objects worthy of admiration and study for all.—Floral Cabinet.

A Pearl Necklace.

The Empress Eugenie's famous pearl necklace is now the property of one of the richest women in Europe, Countess Henckel. The Empress had the pearls sold in London. One of her ladies, accompanied by two friends of the imperial widow, carried them to an English jeweller, who bought them and disposed of them to the Countess Henckel for \$72,000. This lady had some of the pearls less beautiful than the others removed, and added two other rows one of which came from the jewels sold by the Queen of Naples, the other from the necklace of the Virgin of Atocha, sold by a great Spanish personage. At present the suite of pearls belonging to the Countess, ear rings and brooch included, is worth \$160,000 or \$180,000, and is said to be the finest set of pearls in the world.—London Truth.

CRACKERS FOR INVALIDS.—One quart of flour, two eggs, one tablespoonful of sugar. The eggs and sugar must be beaten well together. One large spoonful of butter and lard mixed, to be rubbed well into the flour. Mix all together, and beat long and well. Roll out as thin as a wafer.

BERKSHIRE RUSKS.—One cup sweet milk, one cup yeast, one cup sugar, one cup flour; set over night; in the morning add one-half cup sugar, one-half cup butter, rubbed together, two eggs, reserving white of one, beaten to a froth, with little sugar, to spread over the top.

LINCOLN CAKE.—Two eggs, two cups sugar, one-half cup butter, one cup milk, one-half teaspoonful soda, one teaspoonful cream tartar, three cups flour, flavor.

Advertisements.

In answering an advertisement found in these columns, our readers will confer on us a favor by stating that they saw the advertisement in the Kansas Farmer.

100 ACRES PLANTED WITH BERRIES 100 varieties of selected fruits. Plants grown for transplanting for sale for the market. See our catalogue for what sort to plant and contributors. Range from \$10 to \$100. Address JOHN S. COLLINS, Westmoreland, New Jersey. Also Jersey Red Pigs, all pure stock.

Notice to Sheep Men.

Any persons having sheep to put out on shares, or any other conditions, are requested to correspond with the undersigned, who has had much experience in the care of sheep. Sheep must be healthy. Range dry and rolling, supply of spring water ample, and stock fences sufficient to protect against wolves and weather. Satisfaction guaranteed. Address JOHN HOLAHAN, Waverly, Coffey Co., Kas.

FOR SALE.

Three choice Jersey Bull Calves, for sale from one to eight months and descendants of imp. Cyrene second prize winner at Centennial and grand sons of the celebrated Mulberry 2d, whose 3 year old butter record is unrivaled, viz., 14 lbs in seven days, from testimony of J. Milton Mackey, former President Jersey Cattle Club. Price from \$30 to \$50. Recorded in herd book and transferred to purchaser. For full description and pedigree call on or address, M. M. SNYDER, Attleboro Breeding Farm, near Iola, Allen County, Kas.

THE Weekly Capital

THE DOLLAR FAMILY NEWSPAPER. J. K. HUDSON EDITOR AND PROPRIETOR.

The Weekly Capital, published at Topeka, Kansas, is sent postage paid one year for one dollar. It contains the latest general telegraphic news, news from the principal cities of the state, and contributed and selected news from every county in Kansas, the decisions of the Supreme Court, proceedings of State meetings, convocations and such general literary miscellany and local intelligence from the State Capital as to make it desirable in every family. Send one dollar by registered letter or post-office order, and receive the paper one year.

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During March, 1880, the Capital will be enlarged to a 48-column paper. Subscriptions taken at any time for one year, and the paper discontinued at the end of the time for which it is paid. Sample copy sent free to any applicant. In sending names to the Weekly Capital mention the name of this paper and write address plainly. Address

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THORLEY FOOD, For Stock of all kinds, keeps Horses in perfect health. Increases Stock quicker than anything else. Increases quantity of milk in Cows, and COOKS MEAT. Has been before the public for over 25 years, and has never failed to give satisfaction. For sale everywhere. Circulars, with convincing testimonials, free. THORLEY FOOD CO., 18 and 20 Franklin St., Chicago, Ill.

KANSAS Staats-Anzeiger. The Largest German Paper in the State. Devoted to the Interests of the State of Kansas. If you want to reach or communicate with the Ger-

- 62 Golden Chromo, Crystal, Rose, Damask, Nary, etc. Name in gold and jet 10c. Winslow & Co., Meriden, Ct.
\$66 a week in your own town. Terms and \$5 outfit free. Address H. HALLITT & Co., Portland, Me.
\$77 a Month and expenses guaranteed to Agent Outfit free. Shaw & Co., Augusta, Maine
50 Pin-a-1, Chromo, Lily, Lace, Marble, etc. Cards, 10c. in case, 10c. GLOBE CARD CO., Northford, Ct.
50 Perfumed cards, best assortment ever offered, 10c. Agents Outfit, 10c. CONN CARD CO., Northford, Ct.
52 Gold, crystal, lace, perfumed & chromo cards, name in gold & jet 10c. Clinton Bros, Clintonville Ct.
50 Chromo, Glass, Scroll, Wealth and Lace cards, 10c. Try us. CHROMO CARD CO., Northford, Ct.
18 Elite, Gold Bow, Bevel Edge cards 25c, or 20 Chinese Chromos, 10c. J. D. HURD, Nassau, N. Y.
50 Motto, Gold, Floral, Scroll, Snowflake cards, 10c. Agis Samples, 10c. Stevens Bros, Northford, Ct.
\$5 to \$20 per day at home. Samples worth \$5 free. Stinson & Co., Portland, Me.
ELEGANT AUTOGRAPH ALBUM, gilt covers, 48 pages, illustrated with birds, scrolls, etc. in colors, and 17 Select Quotations, 15c. Agent's outfit for cards, (over 60 samples), 10c. Davids & Co., Northford Ct.
50 Chromo, Tortoise Shell, Cupid, Motto, Floral cards, 10c; outfit 10c. Hall Bros, Northford Ct.
25 Lovely Chromo Cards, name on 15 cents. Try them G. BRUEN, 145 Richard St., New Orleans, La.
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50 Gold, Chromo, Tortoise Shell, Marble and Bow CARDS, 10c. SEAVY BROS., Northford, Ct.
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Washburn College Funds to loan on Long time, at REASONABLE rates, on IMPROVED Farms in Shawnee county. No Commission. Address C. W. JEWELL, Treasurer, Topeka, Kas.

AGENTS WANTED Everywhere, best Family Knitting Machine ever invented. Will knit a pair of stockings, with HEEL and TOE complete, in 30 minutes. It will also knit a great variety of fancy work for which there is always a ready market. Send for circular and terms to The Twombly Knitting Machine Co., 469 Washington St., Boston, Mass.

AGENTS WANTED for the richly illustrated and authoritative history of the great tour of GRANT AROUND THE WORLD. It describes Royal Palaces, Rare Curiosities, Wealth and wonders of the Indies, China, Japan, etc. A million people want it. This is the best chance of your life to make money. Beware of "catch-penny" imitations. Send for circulars and extra terms to agents. Address NATIONAL PUBLISHING CO., St. Louis, Mo.

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THE BEST IN THE WORLD. Our Great Specialty is growing and distributing these Beautiful Roses. We deliver STRONG POT PLANTS suitable for immediate bloom. They are mailed at all post-offices. 5 Splendid Varieties, your choice, all labeled, for \$1; 12 for \$2; 19 for \$3; 26 for \$4; 35 for \$5; 75 for \$10; 100 for \$15. 425-Seedling for our New Guide to Rose Culture—60 pages elegantly illustrated—extra choice from over Five Hundred Finest Sorts. Address THE DINGEE & CONARD CO., West Grove, Chester county, Pa.

KANSAS LANDS. The ATCHISON, TOPEKA and SANTA FE R. R. CO. have now for sale TWO MILLION ACRES Choice Farming and Grazing Lands, specially adapted to the Wheat Growing, Stock Raising, and Dairying. Located in the best of the Cotton and Timbered land of the world, free from extremes of heat and cold; short winters, pure water, rich soil in SOUTHWEST KANSAS. FOR FULL PARTICULARS, ADDRESS A. S. JOHNSON, Land Commissioner A. T. & S. F. R. R. Co. Topeka, Kansas.

The Sheep's Life and Shepherd's Friend. New and very Important Discovery. Deodorizer, Disinfectant, Antiseptic, Insecticide, and valuable Therapeutic agent. Little's soluble Phylid; also Little's Chemical Fluid. The new Sheep Dip is a cure for Scab, Mange and foot rot, kills lice, ticks, and improves the growth and quality of wool; cheaper and better than anything of the kind in use at present, as one trial will prove, costing less than three cents to dip a sheep, mixes readily with water, and is used as a dip in cold water at all seasons of the year; has all the advantages of carbolic and arsenic without their poisonous effects. Send a cent stamp for prospectus and testimonials to JAMES HOLLINGSWORTH, 210 La Salle St., Chicago, Ill.

MAKE HENS LAY. An English Veterinary Surgeon and Chemist, now traveling in this country, says that most of the Horse and Cattle that's Condition Powders are absolutely pure and immensely valuable. Nothing on earth will make hens lay like Sheridan's Condition Powders. Dose: one teaspoonful to one pint food. Sold everywhere, or sent by mail for eight cents stamps. I. S. JOHNSON & Co., Bangor, Me.

Mound City Poultry Yards, Mound City, Kas. Breeder and shipper of pure bred Light Brahmas, Plymouth Rocks and Brown Leghorns. Am now booking orders for eggs as follows: Light Brahmas, \$3.00; Plymouth Rocks, \$2.00 and Brown Leghorns, \$2.00.



Farm Letters.

SILVERTON, Stafford Co., April 20.—While reading in the FARMER, communications from all over our state, from old and experienced farmers as well as amateurs, and all of them seem to be of interest, useful and instructive, I thought perhaps I might say something that would be of interest to some one.

We have a variety of soil here—hard, black land, light, sandy land, and yellow, clay land. The crops on light, sandy soil are looking better than on any other soil. It is very dry here, having had no rain since November. Farmers are busy planting corn.

There was quite a large area of fall wheat sown last fall. The dry and cold weather have done considerable damage to it, but I think if we get rain soon that there will be half a crop. Rye is looking well but it is beginning to joint. The latter seems to need rain more than wheat. Oats are up and looking as well as could be expected. Grass is beginning to look a little green, and cattle are looking very well.

I saw a statement in the FARMER that the people in some of the counties were in a starving condition. We, here in Stafford county, are not likely to starve so long as there is work to be had on railroads. Nearly every one in these parts has been off on railroads, or are making calculations to go on as soon as they get their corn planted.

Many of the farmers are in doubt as to whether they will have any corn this season, and are talking of planting largely of Egyptian corn. As for me, I will plant all the seed I can get, probably fifteen acres. Some will put in as high as fifty acres. I think the Egyptian or Rice corn will be one of our staples in future, as it is a sure crop.

We have been having some very high winds, which have done much damage to wheat and timber, especially to cuttings just set out. I put out six acres this spring, and the soil blew off, so that one-half of the cuttings are nowhere to be found.

Will some one tell me, through the FARMER, where I can get a few artichokes and Spanish chufas, and what will be the cost per pound?

I think that E. A. Peck is rather hard on a certain class of individuals, besides wishing the price of the "Old Reliable" FARMER to be four dollars a year. It would then be so high that the poor Kansan could not get a chance to even look at its pages, and we could not keep house without it. B. H. G.

H. S. H. Downs, Topeka, will furnish chufas for thirty-five cents per pound.

BANVILLE, Comanche Co., April 19.—Yesterday can claim to be the windiest day of the season. It commenced in the morning with a brisk gale from the southwest, and by noon it blew a perfect hurricane, veering round to the northwest towards evening and growing colder, winding up last night with a heavy freeze. The weather still remains very dry in western and southwestern Kansas. Scarcely a drop of rain since last fall, and the prospects for farming look very gloomy at present.

The spring "round-up" has commenced in this county, and cattle on the range are in better condition than for several years past at this time of year.

Many farmers are turning their attention to sheep and cattle, which promise a better return for the capital and labor expended than farming does at present.

My advertisement of Mexican onion seed, in the KANSAS FARMER, brought such an unexpected number of orders, that the stock I had for sale and what I had reserved for my own use, was soon exhausted, but I have now received a large supply of fresh seed, and can fill all orders as fast as received. I have received a good many inquiries by mail as to how late it will do to sow the Mexican onion seed. I will answer, through the FARMER, by saying that last year I sowed on the 10th of May, and raised good onions, but I would advise sowing as early as possible and not later than the middle of May.

I have also received a number of inquiries as to the practicability of raising water by means of windmills, for the purposes of irrigation. I will answer by saying that my experience in irrigating leads me to believe that the windmills I have seen in use in this country would be of no service, and would not justify the expense for the purposes of irrigation; but I will answer more fully in a future article. An experiment is being made on the prairies of Edwards county, by a Chicago capitalist, with a steam pump and windmill both, for the purpose of irrigating, and though I am convinced they will prove a failure, I will give the results to the readers of the FARMER when the experiment has been fully tested.

Brother Hey says, in his article of April 14th, on artificial rain: "Mr. Leggett gives a description of irrigation which looks very well on paper, but I think would not pan out with success here. Where irrigation is practiced with profit it has got to be somewhat level. I don't see where he is going to find water that will run from the creeks up into a rolling prairie that is ten to forty feet higher than the creek, and especially where the creeks are (some of them) dry for a great part of the year." Now Mr. Hey either did not read what little I wrote on the subject, or else did not read it understandingly. I did not propose a care-all for the hills that Kansas is heir to, but in my first letter stated that those who were favorably located on streams of running water, could use irrigation for the purposes of a garden, orchard, or root crops, and in my last letter I stated that the requisites for successful irrigating were a never-failing stream of water,

and level enough to prevent any great washing of the soil. If Mr. Hey ever contemplated going to any expense to irrigate from a stream that has no water in it, I can only give him Punch's advice to young folks about to marry: "Don't, don't do it." But if his creek has water in it with the average fall of Kansas streams, and his land lying only ten to forty feet above the level of the stream, the thing "can be did," in fact the ten feet will be a great advantage as it will place him beyond the reach of the freshets so disastrous along the streams after a heavy rain. Has it never occurred to Mr. Hey that by going up the stream to a point a little higher than the land desired to be irrigated, and taking out a ditch and conveying the fall of the creek, the water can be conveyed on the land even if it be ten or forty feet above the stream where the land lies? If Mr. Hey would pay me a visit, I could, with the aid of a shovel and hoe, and the water running on my land as it now does—fifteen feet above the level of the creek, make it look even better to him on the ground than he thinks it does on paper.

It is useless to tell farmers that they must break ground and plant trees when the ground is baked as hard as a brick and no rain has fallen for nearly eight months.

Again he says the horticultural part of the farm is neglected in the hurry to sow and reap the wheat crop. God knows it will not be neglected on that account in this section of country, for alas! there is no wheat crop to reap. It is easy to say the farmer should get the ground in right condition to plant an orchard; that is what they all want to do, but how to do it, that's the rub.

In my next I will send cash to advance my subscription to the KANSAS FARMER, and I consider it the best investment I can make, and if all my brother farmers would do the same, I have no doubt it would be hundreds of dollars in their pockets and of incalculable benefit to the state at large. I send, as you request, the names of some farmers and stockmen in this vicinity, and hope the specimen copies you propose to send may induce them to become subscribers, and thereby benefit the FARMER and themselves. THOMAS LEGGETT.

KECHU TOWNSHIP, Sedgewick Co., April 17.—Thanks to Mr. Colvin for information to sheep and wool growers. Unable to get what seems to me a fair offer for my product from Wichita wool buyers, I shall write to "Kinse, Jones & Co." for prices. But from my own experience of eleven years handling sheep in this state and Illinois, I think that early shorn sheep will thrive better and sheer annually a little more wool than when shorn late. If sheep are shorn early they, of course, for a week or so may require more protection, but at the same time nature brings every power into exercise to supply the demand, and while the sheep may gain nothing in weight of carcass, the covering of wool is soon complete and sufficient protection.

I am much interested in the various opinions expressed of the catalpa. Have read Barney's pamphlet and am yet in doubt as to whether we have the hardy or common kind. His description of the varieties make them so similar that we will have to wait for older trees ere we may know which is which. I have about one thousand, covering an acre of ground. They were planted in forest shape from seed-bed last spring. The seedlings made a growth of about 3 1/2 feet. This growth was cut off, worked up into cuttings, and these were stuck into good, moist ground. One-half of them grew, made good roots, and about 2 1/2 feet of top. The topped plants I set out last spring, made a new growth of six feet on an average.

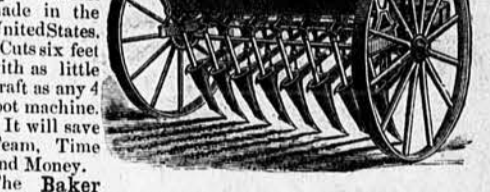
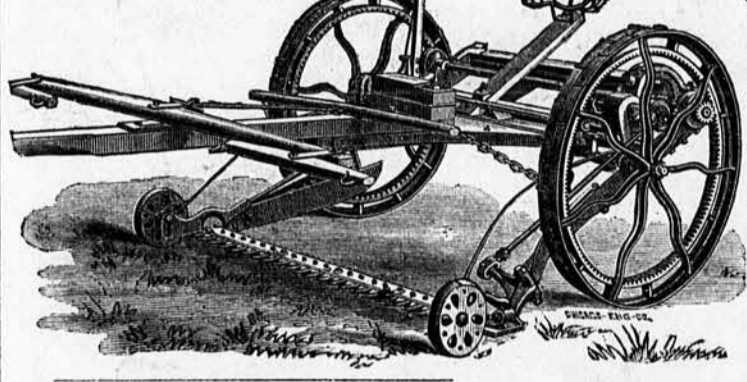
Wind, dust and drought are the controlling elements with us this spring. Growing wheat is suffering much, and some of our farmers are wearing long faces. Most of the corn is planted. Oats are coming up scattering. Stock looks well, and farmers are giving it more attention than formerly. Twenty-two Short-horn bulls were bought at the Kansas City sales and brought to this county by our farmers and stock men last year. Two draft stallions have been brought in from Illinois this spring. Pure blood Merinos and Cotswold sheep are ours to select from in this county.

Mr. Editor, hoping in some way to show our appreciation of your efforts to disseminate valuable knowledge, I shall endeavor to send an occasional item. WM. H. RANSON.

KIDNEY WORT. The Only Remedy THAT ACTS AT THE SAME TIME ON THE LIVER, THE BOWELS, and the KIDNEYS. Why Are We Sick? Because we allow these great organs to become clogged or torpid, and poisonous humors are therefore forced into the blood that should be expelled naturally. KIDNEY WORT WILL CURE BILIOUSNESS, PILES, CONSTIPATION, KIDNEY COMPLAINTS, URINARY DISEASES, FEMALE WEAKNESSES, AND NERVOUS DISORDERS. Use KIDNEY WORT and rejoice in health. It is a dry, vegetable compound and one package will make six quarts of medicine. Get it of your Druggist, he will order it for you. Price, \$1.00. WELLS, RICHARDSON & CO., Proprietors, (Will send post paid.) Burlington, Vt.

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General Agents for the sale of the EUREKA MOWER and BAKER GRAIN DRILL. Wholesale Dealers in all kinds of GARDEN and FIELD SEEDS. Catalogues by mail on application. Prompt attention to small orders as well as large ones. Descriptive Pamphlets and prices of Mower and Drill furnished both Dealer and Farmer in answer to inquiries. Eastern Manufacturers wishing to reship machines at KANSAS CITY, will please address us at 1194 UNION AVENUE.



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Minneapolis Harvester Works. Dewey Harvester.

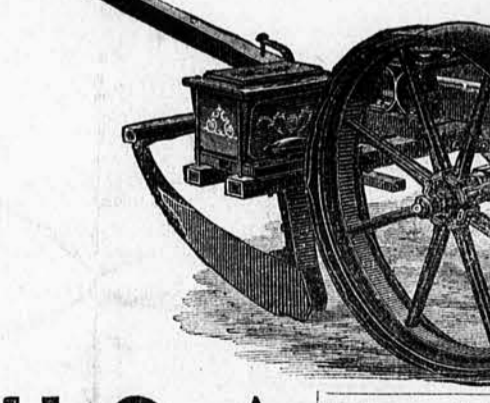
The DEWEY is now quite familiar to the farmers of the West. It is particularly noted for its novel elevator and the position of the binders, which enables the Dewey to work in positions and under circumstances where other harvesters will not. These points, combined with simplicity of construction, Lightness of draft, strength and durability, make the Dewey preferable to all other Harvesters. For Descriptive Circulars call on our local agents, or address V. P. ROBERTS, Gen'l Agent, office with MOSELEY, BELL & CO., Forwarding Agents, Kansas City.

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These Threshers are known throughout the Grain-growing world as the best and fastest Threshers, and most perfect cleaners and separators of all kinds of grain and Flour and Timothy seeds. They are the most durable, lightest draft and the most economical machines of their kind. The Buffalo Pitt's Steam Thresher is unequalled, being built especially to stand the racket of steam power. We keep a good stock of machines and repairs with us, so that our western friends can be supplied promptly. All correspondence should be addressed to THE PITTS AG'L WORKS, Buffalo, N. Y.

