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KANSAS CROPS AND STOCK

Wheat None Improved Since Last Report.

Increased Acreage of Corn, With Good Prospect for a Large Yield.

Oats Short -- Grasses in Excellent Condition.

Small Fruits Are Abundant and Good.

Stock in First-class Order.

The KANSAS FARMER this week presents to its readers a very complete report of the condition of crops, stock and the weather in Kansas on the 29th day of May. The report is made up of brief letters from nearly a hundred correspondents—farmers, in the different counties of the State, all practical men, writing what they know. It appears that wheat is in about the same condition reported a month ago, only further along in growth. Wheat harvest will commence in some of the southern counties about the 10th inst., and the aggregate crop will amount to about 25 per cent. of that harvested in 1884. Fly and chinch bugs doing damage in a few localities. The spring was two weeks earlier than usual. Corn is in first-class condition, the ground clean, and the stand generally good. Height on day of report, six to fifteen inches, much of it already worked twice. Oats is not good; in some places an entire failure, on account of dry weather. It is doubtful if more than 50 per cent. of the acreage sown will be harvested, and that will not equal 50 per cent. of a good yield. Grasses are in good condition, red clover, orchard grass, and alfalfa in the lead. Small fruits generally abundant and of extra quality. Stock doing well, no disease except some lingering evidences of cholera among hogs, and a little black leg in one county. Excepting wheat and oats, the outlook is good. [Private advices just received at the office are to the effect that a great deal of rain fell in many of the counties, Saturday, Sunday and Monday.—Ed. K. F.]

Anderson county.—Wheat, not much in, but what is is growing and will make a half crop. Corn has been worked once; general prospects never so good. Oats are in splendid condition and growing nicely. Increased acreage of blue grass, orchard grass and clover. Small fruit prospect is good. Stock of all kinds doing well; no disease.... **Garnett.**—Wheat, some pieces good, other badly injured by fly. Corn, extra prospect, and large for the time; in good shape. Oats, outlook never better. Grasses doing fine; I think they are a success wherever tried in this county. Small fruit will be light; it fell off after fruit was formed; cause, cold weather in April. Stock doing fine, and getting fat; no disease as far as I know.

Atchison.—Wheat looks well and harvest will be earlier than last year. Corn good with a fair stand. Oats very short, drying up on account of dry weather. Grasses fair but need rain; clover and timothy doing best, other grasses drying up. Small fruit drying up; strawberries ripe but slim crop on account of dry weather. Stock in good condition except hogs, some cholera existing among them; work horses in fair condition.

Barber.—Wheat is not good, about half

crop; rye about the same. Corn looks well, is a fair stand and well cultivated. Oats nearly all plowed up and planted to corn or millet. Grasses—nothing but native, and is good; some red clover sown, with a fair catch. Tame grapes good, strawberries and wild plums good; no peaches. Stock in fine condition; our native grasses are very nutritious.

Barton.—Wheat still holds about the same; some red rust. Early-planted corn good, late coming up slowly and uneven; too dry. Oats, early-sown will make a small yield, others a failure; barleys same. Grasses promising for full crop. We had a nice shower of rain last night, small in extent. Small fruit, very little in cultivation and small crop at that. Stock thriving finely; work stock in better condition than usual all over the county.

Bourbon.—Wheat, not much sown; what there is looks much better than last year. Corn in excellent condition, good stand. Oats in fair condition, heading out but needing rain. Clover is doing finely, and timothy looks well. Small fruit never had a better showing. Stock in fine condition; no disease of any kind prevailing.

Brown.—Hiawatha.—Fall wheat heading, spring wheat needs rain. Corn, stand fair, not much cultivated yet; weather quite dry. Oats short, more sown than usual; rain badly needed. Grasses, pasture excellent, meadows short. Small fruit promises a large crop but need rain. Stock doing fine; still some cholera among hogs; spring pigs are doing well. **Fairview.**—Wheat, fall just fair; spring good condition. Corn, first rate stand, and is doing well. Oats, average condition. Grasses, 100 per cent. Small fruit, fair crop. Stock doing very well; grass good; fat steers not all gone.

Butler.—Wheat, what is left, 75 per cent. Corn, 100 per cent. Oats a total failure. Tame grasses, 50 per cent. Small fruit, 100. Stock, 100. A severe drouth has damaged oats, grass and wheat.

Coffey.—Burlington.—Wheat, what there is, is in fine condition; rains destroyed the bugs. Corn, a good stand and very forward. Oats, early sown in good condition, extra. Tame grass good. No small fruits; nearly all winter killed. Stock in fair condition.... **Burlington.**—Wheat not good; not near an average. Corn, A No. 1; very large acreage. Oats first rate; large acreage. Grasses tame, are the best I ever saw in the state; prairie good. Small fruit very plentiful and splendid quality, especially strawberries. Stock in splendid condition, and doing well; no disease.

Cowley.—Wheat in very poor condition, not more than half a crop will be cut. Corn, splendid stand and never was a better prospect for a large crop. Oats are not worth cutting in most places on account of dry weather. Alfalfa clover is looking splendid, red clover moderately well, other grasses are not worth mentioning. There is a full crop of strawberries, gooseberries, currants, raspberries, blackberries, plums, etc. Stock of all kinds are looking well; all seem to be healthy and in good condition.

Crawford.—Wheat will average about half a crop. A large acreage of corn planted and prospect of a good crop. Oats, prospect for a fair crop; needs rain. All grasses looking well, clover is extra good. Good crop of all kinds of small fruits. Much better than last year. Stock of all kinds look-

ing well; hear of no particular disease among stock of any kind.

Decatur.—Wheat doing well, both winter and spring. Corn, large acreage being planted; looking fine. Oats needing rain, but looking good. Grasses, range the best we have had for years; no tame grasses. Small fruit, native mostly killed by the heavy frost May 15th. Stock doing well; some calves dying with scours.

Dickinson.—Ablene.—Wheat will make about 40 per cent. Corn looking well. Oats suffering for rain; straw will be very short. Grasses, timothy not looking well on account of dry weather; clover is looking very well. There will be an abundance of small fruit. Stock doing well.... **Cheever.**—Wheat, condition good on sod; no indications of fly or chinch-bugs. Corn, general planting finished; stand good; some cultivated twice; listers will be kept going till June. Oats excellent; large acreage, but rain is needed now, it is so dry. Grasses in fine condition; sufficient moisture now will insure a heavy crop of hay; pastures, tame and native grasses are good. Strawberries abundant and fine, blackberries and raspberries fair, gooseberries a light crop. Horses, cattle, sheep and hogs are doing first-rate; no disease except a few cases of cholera, but the disease is nearly stamped out in north Dickinson.

Dontphan.—Troy.—Wheat in good condition good. Corn good and two weeks earlier than usual; most of it cultivated once and some twice. Oats good, but needing rain. Grasses good, but wanting rain; it has been dry for two weeks. Small fruit good, strawberries ripe, Early Richmond cherries ripening. All stock in No. 1 condition. Spring two weeks earlier than usual.... **Highland.**—Wheat in blossom; 40 per cent. of an average crop. Corn, some trouble about late planting not coming good on account of dry weather and poor seed. Oats looking fair. Clover doing well, will be ready to cut in a week or ten days; too dry for timothy. Small fruit, prospects for a good crop; strawberries ripening. Stock generally healthy and looking fine; some few cases of hog cholera.

Douglas.—Wheat headed well, and what is left looks well. Corn, an even stand, and is generally clean. Oats, straw will be rather short; timothy, short straw, orchard grass and blue grass good; white and red clover extra. Stock went in grass in very fine order, and hence are doing well.

Edwards.—Wheat fair. Corn good. Oats, prospects poor; cause, drouth. Grasses need rain. Small fruit fair. Stock first-class.

Elk.—Wheat badly winter-killed; will not be more than one-half a crop. Corn is looking well; clean of weeds, but needs rain. Oats almost an entire failure, caused by drouth. Grasses have been injured by drouth, particularly that sowed this spring; wild grass doing well. We are suffering from dry weather and chinch-bugs; a good rain would check the latter. Stock of all kinds are in a thriving condition; hear of no hog cholera.

Ellis.—Wheat suffered from drouth; late rain last night revived it. Corn, area 200, condition 100. Oats, area 150, condition 80; will advance rapidly now. Grasses, a little timothy and clover—looks well, 100. Small fruit, fair prospect. Stock have improved in condition and now stand fully 100. Over one inch of rain fell last night.

Ellsworth.—Wheat in the valleys good;

weather too hot, and some burnt. Corn, generally good stand; some is being worked the second time. Oats badly injured by heat and two weeks of drouth. Grasses fairly good; a little too hot and dry. Small fruit good where there is any. Stock fine and healthy, and putting on flesh rapidly.

Harper.—Wheat, on account of dry weather must be a short crop. Corn is doing well; not suffering any yet. Early oats a failure; if it rains late oats will make a crop. Pasture where not too heavy stocked looks fine; tame grasses look well. Strawberries are a short crop, raspberries and blackberries promise well. Stock is getting in fine condition on the range. Farm animals look well.

Harvey.—Wheat, not over one-fifth full crop; drouth and chinch-bugs. Corn looking well; planted early; late feeling drouth. Oats, not over one-fourth crop; drouth and chinch-bugs. Grasses, light. Small fruit usually fair; strawberries checked by drouth. Stock healthy and doing well.

Jackson.—Wheat in full head, promises a fair yield; acreage small. Corn, some very fine; late planted suffering for rain; acreage great. Oats just beginning to head; need rain. Timothy, blue grass, red clover, orchard grass and alfalfa all doing well. Strawberries ripe, very fine; cherries beginning to ripen; gooseberries half crop; grapes full crop; other berries full. Stock in good condition; no disease.

Jefferson.—Wheat, about 50 per cent. of usual crop left standing; badly rusted; can't tell yet what will be the result. Good stand of corn; all planted; looks well. Oats, increased acreage; looks well, but needs rain. Grasses, not so large as last year at this time, but look well. Good prospect for small fruit all around; strawberries need rain. All stock doing well.

Jewell.—Wheat is looking well, and bids fair for average crop. Corn all planted, and coming out nicely; ground has been too dry for about ten days, but we have had good showers recently. Oats is doing well. Grasses were never better. A full crop of all kinds of fruit. Stock all doing finely, except hogs; there are some herds affected by cholera.

Labette.—Wheat in bottoms looks fine, uplands not so good. Corn looking well. Oats not looking well, very short. Clover in fine condition; other grass not so good as last year. An abundance of all kinds of small fruit. Stock in good condition.

Leavenworth.—Leavenworth.—Wheat, improved since last report; where stand is good indications are for a full crop. Corn is good; stands well and average prospect. Oats fair; some fields not good; hardly an average. Timothy shortening up; red clover never better, is being cut for hay; all other grasses good. Strawberries unusually good; all other small fruits good. No disease among stock and condition good. The growing crops begin to need rain. With this in season, the prospects are that heavy crops will be secured.... **Fairmount.**—Wheat in good condition, all headed out. Corn, a good stand, and is clean, and averages 6 inches high. Oats in fair condition; some early, some is just heading out. Grasses, all kinds in splendid condition; will yield a good crop. Small fruit, nearly all kinds very abundant. Stock is improving rapidly; pastures in fine condition; no diseases prevalent.

Lincoln.—Wheat looks well, and weather

(Concluded on page 4.)

The Stock Interest.

PUBLIC SALES OF FINE CATTLE.

Dates claimed only for sales advertised in the KANSAS FARMER.
 June 4—Johnson County Short-horn Breeders, Olathe, Kas.
 June 8—Kansas Agricultural College and Bill & Burnham, Short-horns, etc., Manhattan, Kas.
 July 15—T. A. Hubbard, Short-horns, Wellington, Kas.
 Tuesday and Wednesday of next Kansas City Fat Stock Show, Inter State Breeders' Association, Short-horns.

THE FARMER'S INTEREST IN LIVE STOCK IMPROVEMENT.

Abstract of an address given by Prof. E. M. Shelton, of the Kansas State Agricultural College, at the Farmers' Institute held at Fulton, Mo., January 8th, 1888.

We must use our own intelligence, and apply the suggestions of science and experience to our own circumstances. War is being made everywhere on the "scrub," as the miscellaneous-bred animal is called; and yet for many farms the scrub is the best breed. Emerson says: "A weed is a plant whose virtues have not yet been found out." So a scrub may be said to be an animal whose virtues have not been discovered. The man who undertakes to keep the pure-bred animal as he does the scrub is almost sure to fail. This mongrel, no less than the pure-bred, is the product of his environment. To illustrate, the British Islands are famous for their great diversity of climate, topography, fertility and rainfall; and we find three breeds of cattle suited to each varying district.

HOW BREEDS WERE MADE.

The Short-horns originated in a country possessed of great fertility, and well protected from the extremes of climate. On the west side of the island, exposed to the rude blasts of the Atlantic, we find a breed with thick skins, long and abundant hair, and generally long horns. In the north part, again, we find the small Highland breeds, so well suited to the severe climate, the rugged surface, and the scanty pasture of that region.

The conditions and processes that have produced a race of cattle, are best suited to its continuance. The Short-horn in the Highlands would surely degenerate, and approximate to the form and characteristics of the small breeds there found. I advise no man to make a change in breeds unless he has a definite purpose in view—unless he knows just what he wants, and what he expects to accomplish by the change. I have known men who made such changes with the vague idea of improvement, but who soon saw the folly of the change, when it was too late to escape heavy losses and disappointment.

THE WEEDS.

Dr. Laws.—Prof. Shelton, please describe the points of degeneration in the Short-horns of which you spoke.

Prof. Shelton.—We all know the original Short-horns were coarse and scrawny brutes, short in the quarter and possessed of much offal. The cattle of which I spoke lost their massive forms, became *leggy*, and in various ways assumed the original characteristics of the race from which they sprang. The most obvious ways in which a herd may be improved are by improvement in feed, in care and in habit. What I mean by habit is the use made of them. If you want *work oxen*, work them; if *milkers*, milk the females, compelling them to use all their power in that direction; if *beef*, feed well. In breeding, select such animals as have the characteristics wanted, and couple them.

Just here I am asked: What about pedigree? One says pedigree is nothing, another thinks it is everything. The truth lies half way between these contending views. We cannot depend upon

an animal to perpetuate its kind unless it has a long line of pure-bred ancestry—a pedigree, in short, behind it. Some animals having but half or three-fourths of pure blood are better than some full-bloods, but the offspring of these grades will show the characteristics of the scrub. We can look only to the pure-bred for the certain transmission of the distinguishing marks of the breed. If you wish to know whether an animal is a good one to breed from, see if its ancestors had individual merit and were free from disease, and then the longer the pedigree the better.

IN NON-ESSENTIALS UNITY.

Another error in selecting breeding stock is the mistake of fixing upon details non-essential, to the neglect of really useful qualities. I refer to Short-horns again, because they are more widely known than other breeds. I never heard of any one getting anything useful out of color, yet nine farmers out of ten will not look at an individual that is not red. So, many will condemn an animal because its horns have not the peculiar turn they fancy. Let us be sure that we do not base our selection upon some trivial matter that has no money value. All the so-called points of an animal may be divided into two classes: first, those that are in themselves useful; second, those that point to, or vindicate the possession of useful qualities. Why do certain judges place such a high value upon touch, the texture of the skin? It is of no value in itself, but it indicates a long list of qualities that are indispensable. If the touch is hard and skin hard and inelastic, look out for a hard feeder and an animal that is slow and late in maturing. So, the flank is of very little value in itself; it is a boiling piece of low market value. Yet the good judge knows that an animal with a long, deep flank will be a good feeder, with thick flesh and good constitution. The crops, again,—the region just back of the shoulder,—is generally ranked high, although it indicates nothing, but in itself a part of great value.

TO IMPROVE THE POINT.

The question is often asked: How can minor defects in a herd, or individual animal, be corrected? I have seen animals, otherwise good, faulty in the flanks, others in the crops, and still others that were defective in other points. How can these faults be corrected? Generally, we advise to correct such defects by the use of a sire that is well developed in the region where the cows are defective. There arises this difficulty, however, in attempting to correct one fault, we are quite likely to develop defects of another kind. I know of only one way of correcting defects in a herd, and that is by employing males whose general character is good. Select, as a sire, an animal that is well-developed, not merely in the region where the cows are defective, but in all other points; thus you correct the evil of which you complain, and not fall into other errors.

ANENT GRADES.

The farmer's interest in live stock improvement is not likely often to carry him beyond the breeding of grades. And just here a word about the selection of the sire and the coupling of animals. What kind of sires shall be used in the improvement of our common stock? An excellent general rule is never to bring together extremes—an overgrown sire with an undersized female, for instance. Always be content to make the process of graduation or building up a slow one. If you use Short-horns, a medium-sized, compact bull will be most likely to prove satisfactory. The greatest improvements have, almost without exception, been made with small males; because the process of improvement is

generally one of refinement—getting rid of bone, offal and other waste products. Animals of moderate size, close, blocky and compact, have in all breeds proved most useful as sires. Couple animals that are measurably alike. Some writers even carry this idea so far as to advise the use, first of half, then of three-quarter blood, and then of pure-bred males of the given breeds. There is a common impression that an over vigorous male should not be used on an undersized female on account of supposed danger in parturition. I am satisfied, from large observation in this matter, that the notion is a mistaken one. The coarse Lincoln and Cotswold sheep have been largely used upon the little Merino ewes of the East, with generally satisfactory results. Clydesdale and Norman horses have been bred to the small and even pony mares of the country, without injury to the mares from this cause.

Allow me just a word in this connection about the general subject of improved stock. The man who commences with a large herd of pure-bred cattle, with little or no experience in their management, is almost sure to fail miserably. The history of breeding shows that the man who succeeds with pure-bred stock is generally the farmer who commenced with a few animals, which were not allowed to interfere with the general farm work. Bates and Booth were great breeders, but they were also good farmers.

FARMERS SHOULD BE IMPROVERS.

The great improvements in live stock, the world over, have been made by farmers, not professional breeders. This ought to inspire young farmers, particularly, with courage and energy in the improvement of stock. The young man who starts with a few good cows and a sire, which may also be used in connection with a herd of grade cattle, will in a few years find himself in possession of a herd of cattle that will be a mine of wealth to him, and a constant source of pleasure. I am totally opposed to specialties on the farm. Those men have been most successful who have carried on several branches of farming in connection.

In conclusion, it seems appropriate to say that the great work now being done in your State Agricultural College should embrace instruction of the practical sort in all that pertains to the breeding and management of domesticated animals. To this end, it should be equipped with the best specimens of the different breeds of cattle, sheep and swine, so that every student has the daily opportunities for study and comparison which are enjoined in other departments of the university. I expect much from your Agricultural College in the way of disseminating correct views among the farmers of the State, in the breeding and management of live stock. It is for the farmers of Missouri to see that the College is amply equipped for the great work which sooner or later is certain to be demanded of it.

It is said that the bad condition of the streets in London during the past winter has been the cause of the death of more than fifty head of horses per day.

Professor Stewart says green sorghum is a better green food for cows in August than green corn, because it has more soluble sugar and is quite as rich in nitrogenous elements.

Horses are not fully matured until 6 years of age, nor do they arrive at their full strength until 8 years old. Immature animals are often overtaxed and their future usefulness injured.

Old Goose, a female mule now upwards of 40 years of age, is still living on a Government farm near Alameda, in California. This mule was taken to the Pacific slope by General Kearney in 1849.

Guernsey Cattle.

An essay read before the Guernsey Breeders' Association, by Willis P. Hazard.

Among the various breeds to which popular attention has been called in recent years, there is none deserving a higher place in public estimation than the Guernsey, whether for dairy purposes or the later-garnered profit as a beef animal; and yet, perhaps, notwithstanding such strong claims upon the farmers' and breeders' attention, no breed is so little generally known. Not only are there very many who have never seen a Guernsey, but there are a vast number more who have never seen the milk or butter, and a still greater number who have never eaten Guernsey beef. Those who have not, have yet to see the deepest colored milk and cream, the most golden-colored butter, requiring no aid from coloring matter either in summer or winter, and to taste the most highly-flavored beef in existence, having a peculiar flavor of its own.

This breed may be said to be the happy medium between the diminutive Jersey and the huge Friesian, and comprising the merits of both breeds. It is thus par excellence the farmer's breed, especially for the butter-making farmer. Docile to an extreme, bearing neglect of care well, it yet repays careful attention and good feeding with as much interest as can be expected of any bovine race.

COLOR OF THE BREED.

Even to the fastidious, whom nothing but a solid color will please, its rich golden-hued skin will prove attractive and recommend its pleasantly-combined hues of yellow or lemon-fawn and white; for in no other breed will there be found such an exudation of butyrous material filling the pores and the hair with unctuous matter producing that softening effect so dear to the hand of the expert and to the breeder of butter, at least, as a general rule in this breed, it being the exception in other breeds. While to the practical man who knows that color of the hair has not the slightest influence upon the yield or constitution, the charming, softening effects of the blending of the golden fawns and white are sources of perpetual delight.

ORIGIN OF THE BREED.

As this is as old a breed as any other, has been kept purely bred as long, and was imported into this country as early as the Jersey, there must be a reason for its being comparatively so little known and extended. The earliest settlers in the seaboard districts were Dutch, Swedish and English. They naturally brought with them the cows from their homes, and thus, with the intermingling of their cattle, there sprung up what is now termed "native race." As it was found desirable to improve upon these with pure-bred stock, the Devons, the Short-horns, the Jerseys and the Guernseys were imported. The latter two in the first quarter of this century. They at once attracted great attention for their richness of yield. Each breed was imported indiscriminately from either island under the general name of Alderney. As they became fashionable in England, and as each island restricted importation, the true distinction finally culminated in the formation of clubs for each breed. The Jerseys, from their great beauty, as well as merit, have taken the lead. Their praise has been heralded in every manner, and being more finely backed up by records of great performances, the breed has a permanent hold in this country, and as merit is guiding selection now, its claims to value will increase. Thus, also, it is with the Guernsey. The earliest importations made by Colt,

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Address **KANSAS FARMER CO.,**
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Get Acquainted.

There are thousands of intelligent and progressive farmers yet in the West who should become permanent subscribers to the KANSAS FARMER, and would do so if they knew its real value. To any such we will send the paper on trial thirteen weeks for only 25 cents.

Commencement week at the State Normal School is June 12th to 17th inclusive.

The Cincinnati Industrial Exposition for 1886 opens September 1st and closes October 9th.

Topeka and vicinity had a good rain Sunday morning last. How far out it extended we do not know.

We have a note from a gentleman in Osborne county which says: "Please state that we want wool buyers up here."

The sixteenth annual meeting and fair of the Kansas City Inter-State Fair will occur September 13, 14, 15, 16, 17 and 18, 1886.

The FARMER folks acknowledge receipt of personal invitations to attend commencement exercises at the State University to be held from the 4th to the 9th inst.

When shocking grain, let the sheaves stand erect, leaning only toward the center of the shock if it is round, or toward the center of their companion sheaves if the shock is long.

The wheat in South Australia this year did not average more than 2½ bushels to the acre. Still there will be some to spare for shipment abroad at lower rates than American farmers would like to take for their wheat.

We are in receipt of Miss McKelvey's prize essay on "The Christmas Card," prepared in competition for the prizes offered by L. Prang & Co., Boston, art publishers. It is well worth postage on a request for it, and that is all it will cost any person that wants it.

Let the men and boys on farms these long hot days not forget the women who generally work more hours and often harder than the men do. Wherever it is possible to lighten their burdens, do so without being asked. Men do not always give this matter as much attention as it deserves.

Long and Short Hauls.

An inter-state railroad bill passed the Senate some days ago. An amendment was offered providing that no more should be charged proportionally for a short haul than for a long one. The amendment was voted down, but a compromise was effected which simply prohibits charging more on the same weight for a short haul than for a long one.

This long haul and short haul business is a practical one. At first blush it would seem that justice requires the same rates of charges without regard to distance, but a little reflection will satisfy any person that such a rule cannot be safely adopted. "If anything in railway management in its larger phases has been demonstrated in the last ten years it is that the adoption of such a law, if it could be enforced, would either mean the bankruptcy of the railroads affected or the serious pecuniary injury of many of the people whom those railroads serve, probably both. If all rates were to be based on the ratio for long distances, either that ratio would have to be increased or the roads would quickly pass into receivers' hands. If the ratio adopted should be that for short distances, then the rates on through freight would be so high that that branch of the railroad business would be crippled, to the injury equally of the producers and consumers of the products affected and of the railroads."

Kansas farmers could not bear up under such a rule. If they were compelled to pay on their grain and stock such rates as are considered reasonable fifty or a hundred miles out of New York or Philadelphia, they would not raise any crops beyond what they need for their families. Indeed, if that rule had been adopted in the beginning and continued, there would be no railroads in Kansas, and cattle would have to be driven on foot as they were fifty years ago from Ohio, Indiana, Illinois and Kentucky. Hogs could not be taken long distances at all. They could be driven in the fall and winter a distance equal to a few days' travel. Wheat and corn could not be shipped farther than wagons could haul it at a profit. It is by reducing charges proportionally as the distance increases that western farmers can cultivate land profitably.

It is no injustice to the eastern farmer that wheat and other agricultural products of the far west are delivered at the seaboard for less proportionally than they are required to pay, because transportation charges, just like any other charges, ought to be no greater than they are reasonably worth. It is not worth ten times as much to haul the same weight ten times the distance. A farmer who would charge a merchant ten dollars for hauling a load forty miles, would probably charge him half that much for hauling the same load, or one of equal weight, only one-fourth the distance. Freighters invariably lessen their charges per pound or per hundred pounds, as the distance increases, provided, of course, that the difference in distance is enough to amount to anything in practice. A laborer will charge more proportionally for an hour's work than he would for a month or a year. Mechanics charge more proportionally for short jobs than for long ones. It costs as much to move a work bench and a chest of tools for a two days' job as it does for a job that will last a month or a year. The same principle applies to railroading. Incidentals, like loading, switching, unloading, etc., when spread over long hauls amount to but little, though on short hauls they amount to a great deal proportionally. There are a great many items, some

small, some large, in a bill of transportation, and as the distance increases for the same load these expense items grow smaller and smaller in proportion to the weight of the load hauled. For these and other equally good reasons a long haul ought not to cost as much per mile as a short haul on same weight.

Condition of Agriculture in England and Scotland.

Farmers in England and Scotland are discussing remedies for the hard times. In portions of Ireland people are on the verge of starvation. Appeals have been sent to this country for help for some of those poor people. Persons in authority in church and state say the situation is very bad. The editor of this paper received, last week, a request for aid to Irish people who are destitute. In the *Scottish Agricultural Gazette*, which comes to our table weekly, a very able and reliable journal, we find many evidences of great agricultural depression. A few weeks ago at a large meeting of farmers at Insch this resolution was unanimously adopted. "That the present condition of agriculture demands that the government should at once devise a measure in order that a readjustment of rents on the basis of a mutual revaluation of their holdings under existing leases may be obtained, or a revaluation by competent neutral parties, so that the important industry of farming may be again made prosperous, and the fertility of the soil be maintained, both in the interest of the cultivator and the nation at large."

Last week's *Gazette* contained a report of the last quarterly meeting of the Morayshire Farmers' Club. The particular subject for discussion was on wheat growing in that country—whether it could be made profitable. The unanimous opinion of those whose remarks are reported was that the day of profitable wheat growing in England is past unless certain changes are brought about and which are doubtful. Three causes were assigned, (1) unfavorable seasons, (2) foreign competition, (3) the low price of silver as compared with gold. These different causes were discussed at some length. The greatest stress was laid on competition of farmers in other parts of the world, and particularly in America, India and Russia. Some of the speakers believed that with gold and silver at par, Indian competition would not be serious; but that view was not taken by a majority.

It is a fact that farmers there are hardly pressed to make both ends meet, and some of them, particularly the small renters, cannot "pull through" whole.

Mr. A. H. Griesa, of the Kansas Home Nursery, Lawrence, has our thanks for samples of Prince and Miner strawberries grown on his grounds. They are much the best specimens of that choice fruit that we have seen this year. The Prince is pronounced by Mr. Griesa the "superb berry" of all he ever grew. "It has all the requisites for general favor; in addition to its quality, it is very firm, good size, shape and color, fairly productive—much above the average of kinds in cultivation." The Miner is an early berry, of large size, and of good quality.

Every farm house ought to have a good supply of lemons on hand during the warm weather. Ten cents will buy lemons enough to make a good evening drink for nine persons. Half a lemon squeezed into a goblet of water is an excellent medicine in the early morning on rising. Lemonade is good and wholesome at any time. A little acid is good for health in warm weather, and lemon has more of the right kind of acid for such purpose than any other fruit.

A Word About Stacking.

The object of putting grain and hay in stacks is to save it from loss by rain. The secret of good stacking lies in making it shed water, and to do this there must be a thatching, a kind of straw shingling on every part of the outside above a few feet from the ground. All the outside straw or hay must incline downwards, and it must have that tendency fixed when the stack is built.

The first thing to be learned and remembered about stacking is to keep the middle full. Start in the middle of the foundation. Put the first fork-full there and build around it. Not only must the middle be kept full, but it must have the most tramping if any is done, the point being that if any part of the stack is more solidly built than another part, it ought to be the middle, so that in settling the middle will not sink faster than the outside. Then, (in case of hay) if the outside layers are so arranged with the fork as that the stalks and blades lie straightened out inclining downwards, they will settle that way.

The same principle holds with wheat, rye and oats, but it is not so difficult to get the straws into proper position because they are bound in bundles beforehand. But the stack must be begun on the middle of the foundation. Lay a bundle down, then put another on top of that, letting the butt end extend a little beyond the heads of the under sheaf. Build on and around these, tops in butts out, ring after ring until the bottom is large enough. If the stack is to be long—a rick—and not round, then, when the rings widen to the proper size as to width, build back and forth on the two sides that are to be run out as ends. Widen the stack a little as it is raised to about six feet, then place two or three layers so as to keep the outside going up perpendicularly. After that draw in until the stack is finished. As soon as the stack is high enough to commence the drawing in, the middle should have an extra filling. On a stack of ordinary width the middle, when drawing in is begun, ought to be at least two feet higher than the outside. Keep it that way to the top.

When grain is very short it is not best to undertake to widen any up to the "bulge," because there is danger of the sheaves slipping out. Where the straw is long enough, the stack may easily be extended three or four feet on each side beyond the outer lines of the foundation, and that makes room for a good deal more grain than can be put into a stack that is run up straight, or drawn in from the bottom. The writer of this always did his stacking of grain, except the filling of the middles, on his knees. That was the rule in those days. But the work can be as well done standing by using a good fork to place the sheaves. Every bundle ought to be pressed into place by the stacker's weight upon it.

After a stack, whether of grain or hay, after it is finished and settled some, ought to be raked so as to comb out the straw and make a good thatching. The top may be secured by a few sticks tethered with straw or hay bands twisted and ten to twelve feet long and thrown across the top of the stack. If a rick, the weights ought to be about four feet apart. They need not be heavy—just enough to keep the bands in place.

The Brown county fair will be held at Hiawatha, September 14th to 17th inclusive. The Brown county farmers are among the most enterprising and successful in the State. They know what good farming is, and when they undertake to get up a fair, nobody expects a failure.

Mr. P. C. Branch writes from Sterling, Rice county: "Dry weather here. Considerable ground yet to plant to corn that must wait for rain. Millet-sowing must also wait. Early-planted corn doing well. Without rain oats will be very short. Counting out the abundant rains in March and the first half of April, the season strongly resembles that of '74."

The Woman's Christian Temperance Union of Kansas has decided to hold a camp meeting at Salina park, July 1, 2, 3 and 4, 1886. Saturday, 3d, will be celebrated as Independence Day. Mrs. M. A. Woodbridge, of Ohio, Mrs. Clara Hoffman, of Missouri, and Mrs. Judith Ellen Foster, of Iowa, will be numbered among the brilliant speakers from outside the State, arrangements for their attendance being now complete. Engagements with other speakers of national repute are pending. An invitation has also been sent to Miss Rose Cleveland, Washington, D. C., and hopes are entertained that she will consent to attend.

One hardly knows whether it is best to extend sympathy to the dupes of deceptions practiced by western land and town lot speculators. There have been a good many booms advertised lately out west, and town lots soon became very much in demand—on paper. Great sales were advertised and a good many people who were old enough to know better, attended the sales and were "sucked in." Ten minutes honest reflection will satisfy an average man on all these wonderful things. Wind alone will not build a town, and there is little else to recommend a town started in the open prairie, away from steams and off the lines of railroad. It costs nothing to let these new town enterprises alone, though it is sometimes very expensive to meddle with them.

A destructive storm occurred near Sandusky, Ohio, last week. A dispatch from that city of date May 28th, says: The inhabitants of the western portion of Erie and the eastern portion of Sandusky counties, in a few minutes time yesterday, suffered the loss of \$175,000 by a terrific wind, hail and rain storm. Immense trees were uprooted, houses blown down and many people hurt. At Bellevue, hail stones of immense size fell, and hundreds of hogs, sheep and chickens killed. At Bellevue and North Monroe not a house remains uninjured. A number of people were hurt, but none fatally. In Lime township, James Hudson, was blown against a tree and will die. Reports are coming in of fatalities further south. It is rumored that nine children were killed in a falling house near Bellevue, but not verified.

The Boom in Southwestern Kansas.

The rapid settlement of the extreme western part of the State is phenomenal when we consider all the circumstances. In the land district comprising nine counties of the southwest, Seward, Stevens, Morton, Hamilton, Finney, Hodgeman, Ford, Meade and Clark, which had only about six thousand inhabitants two years ago, now have people scattered all over them with new towns springing up in all directions. That district is 86 miles wide north and south, and 138 miles long east and west, containing nearly eight million acres. More than seven-eighths of the land is now taken up by homesteaders.

It would afford real pleasure to the rest of us to believe that all those people will prosper in their new homes and that the new faith in western Kansas is not groundless. But we are hardly far enough along yet to regard the settlement of that part of the State

by farmers as more than an experiment. So many persons enter into races unprepared, that some of them must fail. Our faith in Kansas is almost limitless, but experience of old settlers does not always save later arrivals from trouble. Western Kansas will in time be fully equal to the eastern part of the State in all essentials of wealth and prosperity; it may far surpass even that standard; but there are some hindrances in the way. These will be removed as energetic, persevering men learn what to do and how to do it. Of the people now there, those of them that stay and hold their grip will win greater victories than they now dream of. The land is healthful and fair. In time it will be settled with a prosperous and happy people.

Composition of Oleomargarine.

In a circular sent out by Robert M. Littler, Secretary of the National Butter, Cheese and Egg Association, opposing the bogus butter men, he quotes what the most prominent manufacturers of oleomargarine in the West say about its composition. Messrs. Armour & Co., Swift & Co., George H. Hammond & Co., N. K. Fairbank & Co., and Samuel W. Allerton say about the composition and manufacture of their product: "The component parts of oleomargarine and butterine are oleo oil, neutral lard, fresh cream and milk—some makers use buttermilk—choice creamery butter, fine dairy salt, and clear cold water. The coloring matter used is precisely the same as that universally used by all dairymen and butter makers. At certain seasons of the year a very small quantity of fine salad oil, which is produced from selected cotton seed, is occasionally, but not generally used to soften the texture of the product. The oleo oil above mentioned is made from the choicest fats of beef cattle, rendered at an approximate temperature of 150 deg. The neutral is made from selected leaf lard only, and rendered in a similar way, and at about the same temperature, producing a clear and odorless product, which is put into a bath of clean, cold brine, containing nothing but salt and water, for forty-eight hours, after which, with the proper proportions of oleo oil and the finest creamery butter, the product is churned with milk and cream, salted, and colored, and packed for market. We use nothing else.

Resolutions of Respect.

Capital Grange, of Shawnee county, adopted the following:

WHEREAS, It has pleased the all-wise Creator, the Great Master of the Universe, to remove by death our beloved brother, Henry Eshbaugh, late Worthy Lecturer of the National Grange; therefore Resolved, That while we bow in humble submission to the will of the Heavenly Father, "who doeth all things well," we recognize that in the death of brother Eshbaugh our order has lost one of its most earnest workers, faithful friends and efficient advocates.

Resolved, That, as a mark of respect for our deceased brother, the charter of this Grange be draped in mourning thirty days, and that copies of these resolutions be sent to the family of the deceased.

Patents to Kansas People.

The following is a list of patents granted Kansas people for the week ending May 29th, 1886; prepared from the official records of the Patent office by Mr. J. C. Higdon, solicitor of patents, Diamond building, Kansas City, Mo.:

- Adjustable hanger for roller mills—Geo. W. Combs, of Leavenworth.
Double-acting force pump—Hiram Q. Hood, of Wellington.
Windmill head—John W. Currie, of Solomon City.

When caps are blown from shocks of grain in a rain storm, let the shock dry out partially before replacing the caps.

The Wool Market.

We have encouraging advices from our St. Louis correspondents, Messrs. Hagey & Wilhelm. They write under date of May 28th as follows:

Our wool market is active and firm at advanced prices, and the general tone of trading is buoyant under strong competition between speculators and manufacturers. The latest sales of foreign wools in London were at an advance in prices and receipts there gradually growing less, and buying just commenced.

Sales of two hundred thousand pounds of medium at San Antonio, Texas, were immediately followed by a sharp advance in prices.

At present values of American wools, foreign wools cannot compete, but a further advance of 1 cent per pound would yield the importer a profit and cause heavy receipts from abroad, thus weakening our home market.

Receipts, though heavy, stimulate good prices, and all grades meet prompt sale at the following prices, and which we may be compelled to advance with the coming week:

Table listing wool prices: Fancy medium (28a25), Choice medium (21a23), Low medium (18a20), Light fine (18a20), Heavy fine (16a19), Heavy Merino and Buck (14a16), Carpet (13a16), Common, mixed and burry (15a18), Pulled (15a18), Hard burry, 2 to 5 cents per pound less.

The State University.

We are in receipt of the Kansas University catalogue for 1886. It discloses a good many interesting facts, chief among which is that the institution is in a healthy and prosperous condition. Other facts of special interest are these:

- 1. The Board of Instruction numbers twenty-six.
2. The Department of Law is greatly strengthened, and its work enlarged. The number of its students is twice that of last year.
3. A School of Pharmacy has been opened, with assured success. This department is so well equipped that it may challenge comparison with the best schools of its kind.
4. Spanish will be introduced into the course of study at the opening of the fall term.
5. The Department of Music offers the best instruction in piano and vocal music. Voice culture receives special attention.
6. A Department of Art has been organized, and is in successful operation.
7. The Preparatory Department has discontinued its classes in arithmetic, grammar, history, etc., but continues to receive students who begin the study of Latin, Greek, French, German, Algebra, Geometry.

At the College.

Following is a programme of commencement exercises at the Agricultural College, beginning to-morrow:

- Thursday, June 3d, 8 p. m.—Annual address before the Webster Society, by Mr. Sam Kimble, class of 1873.
Sunday, June 6th, 4 p. m.—Baccalaureate sermon, by President Fairchild.
Monday, June 7th, 4 p. m.—Class-day, for invited guests of class of 1886. 8 p. m.—Undergraduates' exhibition, by members of the third-year class.
Tuesday, June 8th, 1 p. m.—Auction sale of blooded cattle. 8 p. m.—Annual address, by Hon. T. Dwight Thacher, of Topeka.

COMMENCEMENT DAY—WEDNESDAY, JUNE 9TH.

- 10 a. m.—Graduating exercises.
4 p. m.—Military parade.
Examinations from 8:30 a. m. to 12 m. of Thursday, Friday, Monday and Tuesday.
Public conveyance to and from the College in connection with all exercises.
Dinner on Tuesday and Wednesday served in Armory hall, at reasonable rates, by the Ladies' Society of one of the city churches.

Inquiries Answered.

COLT IN BAD CONDITION.—I have a colt, 1 year old this May, that had breaking out of the skin last December, broke out all over legs and body, head and neck, pimples on the skin from the size of a pea to a grain of corn, rather flat, when scratched or rubbed hard yellow water oozes out, is covered with mange, this spring on grass, passed a good many worms—the big white worms, about six inches long; since the weather has got warm eyes have been running water, looks sore, in the middle of the day breathes short and hard like she had been running. What can I do for her?

—The case ought to have been attended to long ago. It is doubtful whether you ever get a good animal of that colt. Clean it out by laxatives; then get your physician to pre-

pare some good worm medicine, give that as he directs; after that feed a little oats and rye every day with the grass, give a little gentian and ginger once a day with the feed, and keep the colt in a shaded place during the heat of the day.

INSECTS.—The most perfect remedy for leaf-devouring insects thus far discovered is London purple mixed in water and sprayed on the leaves. We have advised the use of a pound of purple to twenty gallons of water, but later experiments show that more water may be used, one authority putting the proportions at one pound of purple to fifty gallons of water. Where a spray pump cannot be had, use a white-wash brush or a wisp broom—anything to get the solution on the leaves and branches where the insects are.

Grass-Fed Mutton.

American farmers can hardly be induced to sow in their pastures anything for the special purpose of giving flavor to meats in a general way. Yet it may be that some who would like to grow a special extra fine grade of mutton might be induced to profit by the hints below given by a correspondent of the London Live Stock Journal. It is a well-known fact that meat is easily flavored by the pasturage of the flock or herd, and the flavor may just as well be made good as bad. The correspondent says:

"Lovers of sweet toothsome joints will agree with me that mutton is never better than when it has been grass-fed. But there is often a wide difference between the products of different pastures. As every farmer knows, some plants are not only more nourishing than others, but certain of them are more proper food for particular species of animals; and others again are better adapted for forming flesh and muscle than for fat-producing, or for yielding a large supply of milk than for producing either butter or cheese. This is all pretty well understood as regards the more commonly cultivated grasses and other forage plants, even to the comparative degree of excellence which is to be assigned to each of them for the different purposes specified above. What, however, I would more particularly call attention to here, as being both timely and important, is the propriety—nay, the necessity—of developing to a far greater extent than has hitherto been done that superior flavor, or natural aroma, which is the surest indication of best quality in products such as mutton, milk, butter, and cheese.

The superior flavor of Welsh, Highland, or Southdown mutton is, no doubt, owing to the aromatic plants which abound among the pasturage of those hills, and on which the sheep feed. Many hills in Wales are thickly covered with wild thyme, as many in the Highlands are with lady's mantle and other aromatics which are seldom, if ever, met with in our Southdown pastures. This is a hint of nature's own giving, which the farmer who goes in for meat-raising or dairying in these times of hard competition cannot afford to despise. The aromatics may be less nutritious than clover or rye grass; but they are just as needful to the formation of a perfect pasturage as the other varieties of plants. To this extent, therefore, they should be grown in all pastures. They are easy of cultivation, and will grow in the worst soils; but some, of course, are better adapted to certain soils than others. For instance, parsley, lovage, cummin, coriander, carraway, angelica, and wild fennel, etc., delight in loamy soils, wild thyme, rock rose, hyssop, sage, savory, and horehound, etc., in dry, poor soils; peppermint, etc., in moist soils. There are many other sorts which might be found to answer even better; all of them are obtainable, and all of them are easily propagated by seeds.

Horticulture.

Blooming of Plants in Kansas.

Mr. B. B. Smythe, of Topeka, in a recent number of the *Daily Capital*, presented the following interesting facts:

May and June are the great flower months in Kansas. I find that the country around Topeka is not so prolific of flowers as are the prairies of western Kansas; yet there are enough of new kinds to make the study of plants a real pleasure and very interesting. The number of species found in bloom in March and April was 63; the number found so far in May is 89, being for the past week an average of about eight new plants per day, and making a total up to the middle of May of 152. It is expected that the average number per day will increase for the next four weeks and then drop off somewhat.

The five oaks found, about the first of the month and mentioned in my second article, prove to be, if I am not mistaken: *Quercus imbricaria*, single oak; *Q. palustris*, pin oak; *Q. coccinea*, scarlet oak; *Q. macrocarpa*, burr oak; and *Q. bicolor*, swamp white oak. Hickories, too, have finished blooming. Three species are common in our woods; *Carya amara*, aquatica, and porcina. Black walnut has, with the oaks and hickories, passed blooming. Butternut does not, to my knowledge, grow here.

Mulberries have passed blooming and now the fruit is set. Hackberry is occasional in our woods. Wild cherry has been in bloom and filling the woods with its great fragrance. Two other shrubs of great fragrance are found near wet places—common wild grape and *Ampelodesmos fruticosa*. The former is now in full bloom; the latter just opening. The scent is very delicious and can be detected half a mile distant; the grape is scarcely less so. Blackberries and raspberries have just put off their matrimonial raiment. Strawberries are not yet out of bloom, though the fruit is already commencing to ripen.

Of ornamental shrubs and trees the following have been and are enjoying their annual holiday: Locust, whose fragrance is agreeable to nearly every one; mountain ash, just now in full bloom; hydrangea, snowball, spirea japonica, rose acacia (*Robinia hispida*), weigela (*diervilla*), "syringa" (*Philadelphus*), scarlet-fruited thorn (*Crataegus*), red and yellow honeysuckles and wistaria, all very beautiful and vying with each other to give the most pleasure. Red cedar and yellow and Austrian pines and probably other evergreens have done blooming. There is nothing remarkable about the florescence, except that the pines liberate a vast quantity of very fine yellow pollen.

The beautiful clematis will soon be unfolding its loveliness. Honey locust is just coming into bloom. Its flowers are not handsome, though quite fragrant; but there is something remarkable about the handsome leaves. They show a transitional state between simple and compound leaves. The early leaves of spring are simply pinnate. The leaves of summer are doubly pinnate. Between these two forms are leaves to be found in various degrees of transition. Some have a portion of the leaflets changed into pinnæ; sometimes a leaflet has on one side a row of leaflets, the other side entire; again the lower leaflets are entire, the upper all pinnate, the middle ones half and half.

In the woods, preparing for the approaching bridal feast, are the following shrubby vines: *Ampelopsis quinquefolia* (Virginia creeper), *Menispermum Canadense* (moonseed), *Celastrus scandens* (climbing bittersweet), *Rhus radicans* (climbing ivy), *Smilax*

Rotundifolia (greenbrier), and *S. pseudo-China*, with curious tendrils on the leaves. These all have beautiful clusters of berries that will remain on the vines all winter, if gathered in season, and are very ornamental, those of the Virginia creeper being a blue-black; of the moonseed black; of the bittersweet scarlet with orange arils divided into three parts and standing open; the berries of the climbing ivy white, and those of the smilax a green-black. The climbing ivy is said to be poisonous to some, though I have never found it so, always handling it with impunity and perfect freedom. However, I would advise caution in handling it. It is known by its leaves being three-parted, or divided into threes, and by its clinging to trees by rootlets all the way up. The leaves of the Virginia creeper are divided into fives, and the vine clings by its sucking or curling tendrils at the leaf joints. The moonseed leaves have five corners; the other leaves are simple.

An interesting little shrub now in nuptial robes arrayed, is Jersey tea (*Ceanothus Americanus*), growing on dry hills. It has curious little white flowers, the clawed petals of which try to cover the center, and are shaped for all the world like Israel Putnam's hat of revolutionary days. They say our revolutionary parents used it for tea. If it were used for tea now, it would probably be found less astringent and more stimulating than much of the tea of commerce.

Among the most beautiful herbs now in bloom are peonies, columbines, blue larkspurs and irises in the garden; and wild larkspurs, Callirhoe involucrata, Verbena aubletia, Tradescantia, or spider lily, Smilacina or lily of the valley, *Enothero grandiflora* and sinuata and *Pentstemon grandiflora*, growing wild, but all worthy of a place in a garden.

I should not forget the roses—the incomparable—the loveliest of all. Yellow, white and crimson roses are in full bloom; pink and moss roses are just coming into bloom; and soon—even long before Memorial day—all kinds will be very abundant, including the several kinds of wild roses.

Cottonwood and early willow seeds are ripening and commenced falling on the 12th. Dandelion seed commenced flying about a week earlier.

Cactuses, among the most interesting and beautiful of all flowers, will be opening in the next two weeks. There are five kinds native in Kansas.

B. B. SMYTHE.

Sugar Beet Culture.

For the information of such of our readers as have an itching for sugar beet culture, we append a few suggestions taken from a letter printed in the *Farmer and Dairyman*, Portland, Oregon: *First*.—Select a soil that will not become hard during the growing season. A sugar beet if raised on proper soil with cultivation will grow all underground, except a very small crown. If the ground becomes hard, so that the beet cannot expand underground it will be forced above and will be worthless for sugar, as that portion of a beet that grows above the surface of the ground contains no sugar, but impurities that prevent the crystallization of sugar. *Second*.—Plow the land not less than twelve inches deep the first plowing, and as early in the season as practicable. Plow very shallow the second time, not over four to five inches deep. Work the land well after this last plowing. Then, if the rainy season is about over, let it remain from ten to twelve days before sowing, in order that the moisture may rise near the surface. If seed is sown on freshly prepared land it will germinate immediately, and if the weather

should be warm and dry, the moisture will recede from the surface, the germs die, and the seed become worthless. After the young beets are fairly up, the sooner they are thinned the better. Much depends upon the distance apart beets are grown for their value for sugar; the best distance is in drills fifteen inches apart, and thinned out in the drills or rows so as to stand from four to six inches apart, after thinning. All that is necessary is to keep them free from weeds."

In the Dairy.

The Largest Two-year-old Milk and Butter Record.

We are in receipt of a letter from Smiths, Powell & Lamb, stock breeders, of Syracuse, N. Y., inclosing statements and affidavits showing milk and butter records of two 2-year-old Holsteins. The facts are thus stated:

"The Holstein-Friesian heifer Albino 2d, H. H. B. 3500, owned by Smiths, Powell & Lamb, Lakeside Stock Farm, Syracuse, N. Y., dropped her first calf April 7th, 1885, being then two years, one month and twenty-three days old. Her record commenced on the morning of April 11th, 1885, and ended on the evening of April 10th, 1886, just 365 days. She gave during that time 18,366 lbs. 2 ozs. of milk. At the expiration of the year her daily yield was higher than when her record commenced, so that her record for exactly one year, commencing on the morning of May 5th, 1885, and closing on the evening of May 4th, 1886, was 18,462 lbs. 1 oz., thus surpassing by 715 lbs. 15 oz. the famous two-year-old record of Aaggie 2d, which is 17,746 lbs. 2 ozs., and she was some months older than Albino 2d when she commenced her record. Fully realizing the importance of this record and its value, not only to their own herd, but to the breed at large, it was decided to take such action as would establish, beyond the possibility of a doubt, the *absolute accuracy* of this enormous milk record. The following sworn statements will be read with interest, because they show that the heifer was less than twenty-six months old when her record commenced: That a well-known inspector for the Holstein-Friesian herd book—Mr. S. Burchard—witnessed her first test, which was made after she had been in milk eleven months and sixteen days, and that he saw her give on the first day 53 lbs. 4 ozs., and on the second day 55 lbs. of milk; that Mr. S. Hoxie, Superintendent of Advanced Registry, Mr. Isaac C. Otis, Inspector, and Mr. Dudley Miller, a former inspector for the Holstein-Friesian Herd Book, made the second test and saw her give, March 24th, 1886, in just twenty-four hours, 50 lbs. 11 ozs. of milk; that the above named gentlemen made the test in as thorough a manner as it could be made; that they examined the record books and were perfectly satisfied that the whole record was correct as recorded; that the scales used for the test did not pass out of their possession, and the Sealer of Weights and Measures at Syracuse, N. Y., certified that they were correct; then follows the sworn statement of Hiram H. Gibbs, who milked her during the whole year, and who testifies that the whole record is correct."

Then follow the affidavits above-mentioned, followed by this statement:

"Almost as remarkable is the butter test of the two-year-old heifer, Benola Fletcher, H. H. B. 6891, also at Lakeside, which dropped her first calf April 18th, 1885, was put on a butter test April 30th, 1885, being then but two years, one month and twenty days old, from April 30th to May 6th, inclusive,

she gave 300 lbs. 1 oz. of milk, from which was made 16 lbs. 9 ozs. of worked, unsalted butter, being an average of one pound of butter from 18 lbs. 11-100 of milk. Benola Fletcher has given in just one year ending April 19th, 1886, 13,159 lbs. 4 ozs. of milk. The above butter and milk records of Benola Fletcher are sworn to by John O'Hare, who made the butter, C. M. Armstrong, superintendent of farm, Evan Roberts and Wyatt Pierce, who milked the heifer through the year."

How to Make Choice Butter at Home.

To make good butter it is necessary to have good, pure milk, and in order to get this your cow must be fed and milked at regular times, be kept thoroughly clean, have plenty of fresh air and pure water, and her food composed of those substances that are nutritious and will keep her in good, healthy condition. Good fresh grass and bran in summer, and good hay, sugar beets or carrots, bran and corn meal mixed in winter. Avoid all brewers' slops or grains, and all other filthy slops and impure water, for although they may increase the flow of milk, it will be thin, blue and often tainted. The place where your cows are milked should be kept perfectly clean, so that the milk will absorb no bad odor. Don't allow your milker to wash the cow's teats in the milk pail, as it is very often done, but insist on them taking a damp cloth and wiping the cow's bag thoroughly before they commence to milk. Always use a good tin milk pail for that purpose only.

Strain your milk in a good can and place it in a water-tight box or barrel made on purpose to hold the can or cans, submerged an inch or two under water. The water getting warm from the milk, should be run off and fresh water added several times until the milk is the same temperature as the water, which should be 50 deg., or still lower. No danger of being too cold as long as it does not freeze. The cover of a can should be held to its place with a weight. Leave it ten or twelve hours or until the next milking time, and draw off the milk. I use a Cooley can, capacity five gallons, provided with a good cover and a window at the bottom to show how much milk separates. At the bottom there is also a spout that you can turn down and draw off all the milk, leaving the cream in the can. Pour the cream out of your can or creamer into a tin cream can that should always be kept perfectly clean and sweet, and as soon as you have enough cream to churn allow it to become slightly acid or ripe in a temperature of about 60 deg., stirring it occasionally to produce evenness of ripeness. Churn in a churn kept scrupulously clean and sweet, and have the temperature of your cream 60 or 63 deg. When churned take out and work. Do not wash your butter after taking it out, as it hurts the flavor to a certain extent. Do not put your hands to it, as the hands being warm will melt and break the globules, and give the butter a greasy appearance. Work out the buttermilk with a wooden paddle, and work in the salt with the same thing. Use three-quarters of an ounce of best dairy salt to the pound of butter. My rule is to work three times before it is ready for table use; working too much makes it pasty and spoils the flavor. By following the above directions you will always have "gilt-edged butter."

By the submerged process the milk is excluded from everything that is unclean, no bad odors are absorbed, no dust or vermin can get to it, and the milk is perfectly sweet after having been drawn from the can, and is excellent for table use, and the butter is pure, sweet and delicious, when made by this process.—*Mrs. J. A. Ramsden, in Connecticut Farmer.*

The Poultry Yard.

The Origin of the Domestic Powl.

Stephen Beale, an English poulter, discusses this subject in the *Country Gentleman*, as follows:

Though considerable attention has been given to the origin of the domestic fowl, we appear as if from a settlement thereof as ever. Naturalists are agreed so far, but beyond that there are differences which they are unable to agree upon. For a time the opinion of the late Darwin, that all our domestic fowls are derived from one stock, *Gallus bankiva*, or wild fowl of India, found general acceptance, but more recently doubts have been thrown upon this view. There is one thing, however, certain, that the majority of our breeds are derived from the wild fowl named above, and also that all our breeds owe their origin to eastern and southern Asia.

Naturalists recognize four members of the genus *Gallus*. First is *Gallus sonneratti*, found in the southern districts of India, and at one time thought to be the parent of our domestic breeds, but students have noted marked differences. Second, *Gallus stanleyii*, found in the island of Ceylon; except the color of the comb, this genus resembles the domestic fowl so very closely that some naturalists were at one time inclined to regard it as the parent species; it has, however, a singularly different voice, never known to be found in our fowls. Third, the *Gallus furcatus*; this variety inhabits Java and the islands eastward as far as Flores, but it is so different in many characteristics that no one regards it as the parent of any of our races of domestic poultry. It has green plumage, an unserrated comb, and a single median wattle. With respect to the latter point, Mr. Lewis Wright, in his book of poultry, tells of a Light Brahma hen which showed this peculiar characteristic: "There is not a vestige of the ordinary wattles at the side of the base of the lower mandible; but instead thereof an immense single wattle hanging in the true meridian line, giving the whole head a most peculiar expression, which is added to by the shapeless character of the comb." He also states that Mr. Wragg, of Stoke Park, Ipswich, one of the most experienced breeders of Asiatic fowls in England, has had at various times birds with single wattles. Mr. Wright points out another resemblance between the *Gallus furcatus*, namely, the forked tail, a most prominent feature of the Brahma. And fourth, the *Gallus bankiva*; of this variety Darwin says:

"It has a much wider geographical range than the three previous species; it inhabits northern India as far west as Sindh, and ascends the Himalaya to a height of 4,000 feet; it inhabits Burmah, the Malay peninsula, the Indo-Chinese countries, the Philippine Islands and the Malayan Archipelago as far eastward as Timor. This species varies considerably in the wild state. Mr. Blyth informs me that the specimens, both male and female, brought from near the Himalaya, are rather paler-colored than those brought from other parts of India; whilst those from the Malay peninsula and Java are brighter-colored than the Indian birds. The wild *Gallus bankiva* agrees most closely with the Black-breasted Red Game breed, in coloring and in all other respects, except in being smaller, and in the tail being carried more horizontally. But the manner in which the tail is carried is highly variable in many of our breeds. It is a significant fact that the voice of both male and female *Gallus bankiva* closely resembles, as Mr.

Blyth and others have noted, the voice of both sexes of the common domestic fowl; but the last note of the crow of the wild bird is rather less prolonged. Captain Hutton, well known for his researches into the natural history of India, informs me that he has seen several crossed fowl from the wild species and the Chinese bantam; these crossed fowls bred freely with bantams, but unfortunately were not crossed inter se. Captain Hutton reared chickens from the eggs of the *Gallus bankiva*; and these, at first very wild, afterwards became so tame that they would crowd round his feet. He did not succeed in rearing them to maturity; but as he remarks, 'No wild gallinaceous bird thrives well at first on hard grain.' Mr. Blyth also found much difficulty in keeping *Gallus bankiva* in confinement. In the Philippine Islands, however, the natives succeed much better, as they keep wild cocks to fight with their domestic game birds. Sir Walter Elliott informs me that the hen of a native domestic breed of Pegu is undistinguishable from the hen of the wild *Gallus bankiva*; and the natives constantly catch wild cocks by taking tame cocks to fight with them in the woods. Mr. Crawford remarks that from etymology it might be argued that the fowl was first domesticated by the Malays and Javanese. It is also a curious fact that wild specimens of the *Gallus bankiva*, brought from the countries east of the Bay of Bengal are far more easily tamed than those of India; nor is this an unparalleled fact, for, as Humboldt long ago remarked, the same species sometimes evinces a more tame disposition in one country than in another. If we suppose that the *Gallus bankiva* was first tamed in Malaya and afterwards imported into India, we can understand an observation made to me by Mr. Blyth, that the domestic fowls of India do not resemble the wild *Gallus bankiva* of India more closely than do those of Europe."

I have given at length these particulars respecting the *Gallus bankiva*, for the reason that it is certain that the great majority of our varieties are its descendants. That which has brought doubts into the minds of students has been the habits of the heavy feather-legged races from China—Brahmas and Cochins, which are altogether different from most other breeds of poultry. The differences of habit were described in the *Field* by a writer, as follows:

"After a year or two of preliminary examination (this refers to thirty years ago, when Cochins were first introduced), I adopted this method of managing the Cochin Chinas: As soon as a brood was as big as thrushes, it was taken with its nurse and put into one of the fields. The hen was cooped until she was settled to her range, after which the coop was removed, and an ordinary tea-chest, laid upon its side, was put in its place, an old door or some loose boards being 'leaned' over its mouth. When the birds got as big as partridges, even this shelter was removed; for it was noticed that, unlike other poultry, which in similar circumstances seek the hedge-rows and trees for shelter, the Cochin Chinas preferred to 'jug,' as partridges do, in the middle of the field. This habit is in itself quite unlike that of any other variety of poultry, all of which are, when free to choose, arboreal in their habits. The next distinction was seen when the pullets began to lay. If there were any coop accessible which had been used for a lodging, they would deposit their very abnormally-colored eggs therein. But if there was not, the descendants of some imported birds never sought for a place of shelter under a bush or

BULL'S SARSAPARILLA.

THE LIVER
Secretes the bile and acts like a filter to cleanse impurities of the blood. By irregularity in its action or suspensions of its functions, the bile poisons the blood, causing jaundice, sallow complexion, weak eyes, bilious diarrhoea, a languid, weary feeling, and many other distressing symptoms generally termed liver troubles. These are relieved at once by the use of BULL'S SARSAPARILLA the great blood resolvent.

DYSPEPSIA
Variable appetite; faint, gnawing feeling at pit of the stomach, heartburn, wind in the stomach, bad breath, bad taste in the mouth, low spirits, general prostration. There is no form of disease more prevalent than Dyspepsia, and it can in all cases be traced to an enfeebled or poisoned condition of the blood. BULL'S SARSAPARILLA by cleansing and purifying the blood, tones up the digestive organs, and relief is obtained at once.

SCROFULA
Is a peculiar morbid condition of the system, caused by impurities in the blood. The lack of sufficient nourishment furnished to the system through the blood, usually affecting the glands, often resulting in swellings, enlarged joints, abscesses, sore eyes, blotchy eruptions on the face or neck. Erysipelas is akin to it and is often mistaken for Scrofula as it comes from the same cause, impure blood. BULL'S SARSAPARILLA by purifying the blood and toning up the system forces the impurities from the blood and cleanses the system through the regular channels.

THE BLOOD IS THE LIFE.

KIDNEYS
Are the great secretory organs of the body. Into and through the Kidneys flow the waste fluids containing poisonous matter taken from the system. If the Kidneys do not act properly this matter is retained and poisons the blood, causing headache, weakness, pain in the small of back and loins, flushes of heat, chills, with disordered stomach and bowels. BULL'S SARSAPARILLA acts as a diuretic on the Kidneys and bowels, and directly on the blood as well, causing the great organs of the body to resume their natural functions, and health is at once restored.

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KEEP THE BLOOD PURE.

some hidden spot as other poultry do, but always choose some heap of mould or small elevation and laid on the top of this, quite indifferent to the eggs being exposed to sight, so that they were above the ordinary level of the land. This peculiarity is strongly marked. "From these idiosyncrasies I had inferred that this variety of fowl could not be descended from the tree-roosting, bush-hunting ancestor of the game cock, etc. All the indications, slight perhaps in themselves, yet not without weight when taken together, go to show that the ancestors of the Shanghai must have been found by 'the humans,' who annexed them in quarters unlike an Indian jungle—i. e., in some dry desert with scant vegetation, and watered, when watered at all, by rivers fed at a distance by melting snows, which came down in force when the birds were sitting on eggs. The extreme stupidity of the Shanghai proves it could have had, in its native habitat, few enemies to contend against, as does its readiness to accept the protection of man. When both were free to range at will, the game fowl always 'cut' the Cochin persistently; and for the most part a game cock when at liberty will refuse to accept the advances of the widowed Shanghai hen. He will generally drive her away."

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[When writing always mention this paper.] SMITHS, POWELL & LAMB, Syracuse, N. Y.

THE MARKETS.

By Telegraph, May 31, 1886.

LIVE STOCK MARKETS.

St. Louis. CATTLE—Receipts 1,500, shipments 600. Market quiet and barely steady. Export steers 5 35a 5 60, good to choice shipping 5 00a5 30, common to fair 4 40a4 80, butchers steers 3 50a4 75, cows and heifers 2 25a3 80, corn-fed Texans 3 50a5 55, grass fed Texans 2 25a4 00.

The Drovers' Journal reports: CATTLE—Receipts 6,000, shipments 2,000. Market strong and 5a10c higher. Shipping steers, 1,300 to 1,500 lbs., 4 10a5 60; 1,200 to 1,300 lbs., 4 70a 5 50; 950 to 1,200 lbs., 4 20a5 10; stockers and feeders 3 00a4 60; cows, bulls and mixed, 1 70a4 10; through Texas cattle 3 00a4 85.

KANSAS CITY. CATTLE—Receipts 900, shipments 1,551. The market was strong and fairly active. Native shippers 5a10c higher; stockers and feeders steady. Sales ranged 4 25 for butcher's steers to 4 95 for shipping steers.

PRODUCE MARKETS.

Chicago. This being Decoration Day and a legal holiday, the banks and Board of Trade and Stock Exchange are closed on the curb. A few operators gathered about 11 o'clock and several trades in July wheat were made at 75 1/2c, as operators feared a decrease in the visible supply of 2,250,000 to 2,750,000 bushels.

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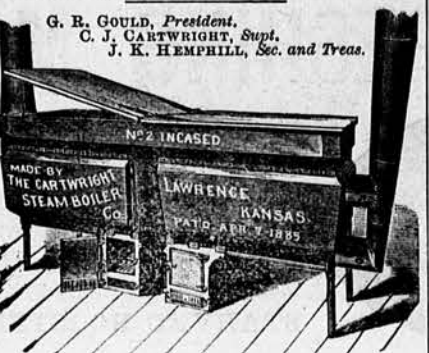
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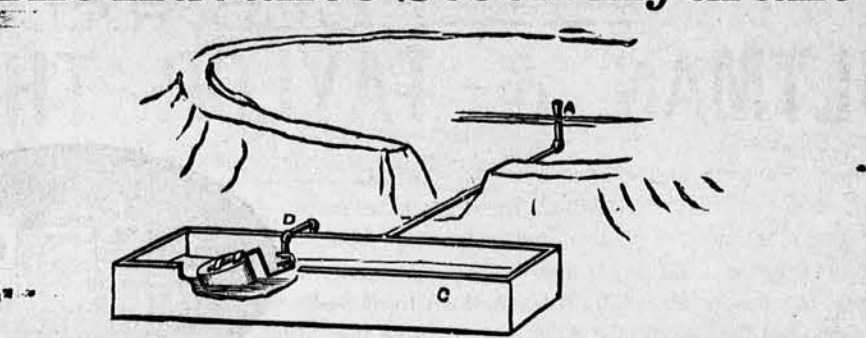
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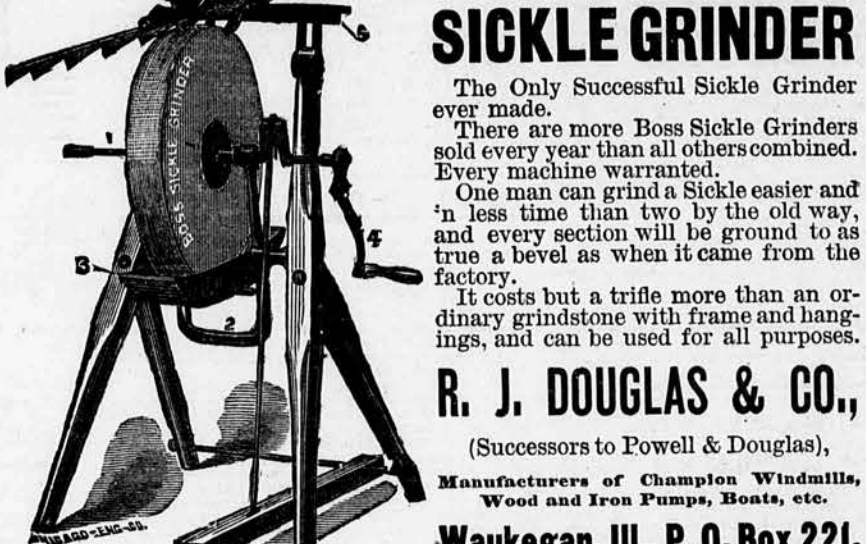
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