FARM, FIELD, GARDEN.

TOPICS OF PRACTICAL INTEREST TO PROGRESSIVE FARMERS.

Fertilization by Crop Rotation, as Demonstrated in Field and Farm—A Scheme That Gives Alternately a Nitrogen Gathering and Nitro-Consuming Crop.

Some authorities, among whom is Professor Wagner, divide crop growth into two very distinctly marked classes. They are the nitrogen gatherers and nitrogen consumers. Except a small amount of nitrogen in the soil to start the growth, the nitrogen gatherers draw all their supply from the atmosphere. It is therefore waste to supply nitrogen to these crops. The nitrogen consumers draw no perceptible amount of nitrogen from the atmosphere, but take it all up through the soil, and nitrogen must be applied to the soil or furnished to the soil by some other source. It may be through the roots and stubble of a previous nitrogen gathering crop, or by the direct application of nitrates. All crops require potash and phosphoric acid, and in some cases it may be necessary to supply lime. Hence all soils should be fertilized with these three ingredients until they contain so much that any addition makes no perceptible increase of crop. A soil so charged is in a maximum condition.

A system of rotation should be adopted that will give alternately a nitrogen gathering crop and a nitrogen consuming crop, and there will be very little demand for the application of nitrogen as the nitrogen gathering crop will each time furnish the requisite amount of nitrogen for the following nitrogen consuming crop. In this way nature is made to furnish to the farmer free of cost, by of all fertilizers. Such is the theory. Now, what crops are nitrogen gathering? The answer is, all the leguminous plants—as peas, beans, clover, lucine, cowhella, lentils, sainfoin, etc. What crops are nitrogen consuming? Answer: All the cereals, the grasses, and roots, if not all, at the roots, fruits, etc., including maize and potatoes, wheat, rye, oats, barley and sorghum. The proper rotation of these two classes of crops, if the soil is well supplied with potash, phosphoric acid and lime, is supposed to secure the maximum crops and the most economical fertilization—both the crops and the economy to be enhanced by a careful and judicious saving and application of all available fertilizing material on the farm.

The Four Classes of Cowbs.

H. S. Babcock, writing in The Farmer's Review, reduces the variety of cowbs upon our farms to four classes. First, the single comb of the original progenitor of our domestic fowls and the type toward which other combs constantly tend to revert. It is upright, should be straight, and normally is serrated upon the upper edge. The tendency be reverts to this type manifests itself even in old breeds. Second, the rose comb, which differs from the single in being broader, flat upon the upper surface and usually terminating in a spike at the rear. The upper surface is generally covered with small points or corrugations, and is described by the English fancier as being "full of work." One of the most peculiar forms of this comb is that known as the "cup rose," which is found on the Brillianes. The comb is round, hollowed out like a cup or saucer, and the outer edge covered with small points.

Third, the pea comb, which is the triple comb of the Brahmas and small upon Indian games, and bred upon the more recent varieties of the Plymouth Rocks. It has not been majority compared to three single combs placed together at the rear and front, with the middle one the highest. Pea combed varieties have great reputations as winter layers, and the reputation has doubtless been deserved through the immunity from frost which the comb gives. The fourth is known as the leaf comb. The true leaf comb would be, of course, two single combs pressed together at one edge and opening outwardly, a style of comb which is rarely seen, but from which, in all probability, the combs of the Polish and Houdan and even the upright horns of the La Fleche have been evolved. The typical leaf comb of our day is that of the Houdan, two horns more or less eringed like the antlers of a deer.

The Best Growth of Corn.

It is quite well known that growing corn is often injured by deep plowing, but no instance is remembered which the reasons for it have been better given than has been done by the Illinois Experiment station. The purpose of the experiments were to ascertain the number of the roots of corn and their depth at the points where they are likely to be disturbed by deep cultivation. Nine plants which averaged 12 inches high had altogether 84 roots, or an average of over 10 apiece. The longest was 12 inches long, the plant was 22 inches high. A giant 44 inches high had a root 18 inches long. Three-fourths of the roots would not have been hurt by cultivating 3 inches deep, but all except one would have been at 4 inches.

Seven other plants had 91 roots, of which 78 were traced, with few exceptions, their entire length. Rather more than three-fourths of the roots would not have been broken by cultivating 3 inches deep; nearly two-thirds would have been at 4 inches. Over one-third were 4 inches deep at 6 inches from their base. These went straight down. The roots (except those at the seed, which afterwards do the start usually at from one to two inches from the surface, without reference to the depth at which the seed has been planted. In case the seed has been planted deeper than this, the shoot is simply elongated between the first or seminal whorl, and the second or first nodal whorl. Thus, unless necessitated by drynesss, nothing is gained by planting corn over three inches deep. Deeper planting would merely require of the plants extra force and time to reach a position where the roots which eventually nourish them will grow.

One more opinion new cruiser, the Newark, added to our navy of evolution and goes into business regularly.

In the spring raw sugars will be admitted to the country free. Then, if the great syndicate of refiners please, the people will get sugar at a cents cheaper than they do at present. But it will be good on the refiners.

PEDIGREE ANIMALS.

Importance of the Selection of Farm Animals for Breeding Stock.

The old saying that blood will tell is equally true and applicable to animals as to men. It is a belief in this theory that lies at the foundation of herd books, cattle registers and all associations for the importation or improvement of animals. When a farmer has stocked his farm with his favorite breed he is too apt to consider that there is little more for him to do than to preserve his herd in its present purity of blood. This too often leads to a neglect in making himself fully acquainted with the excellences or defects of its individual members. Then a sudden loss has to be sustained by reason of cattle in which many of the animals, if they could be tried by the pedigree test, would be found to have descended from ancestors in no way remarkable for the better characteristics of the breed to which they belonged.

There are existing differences among the members of a herd of Jerseys or Holsteins as wide as any that separate the breeds. Attention to detail in the improvement of a breed by the selection of sires and dams as breeding stock, where it can be shown by pedigree that in addition to their own inherent fitness for certain purposes and objects, sires have descended from progenitors possessing these characteristics in a more pronounced degree than an average proportion of the dominant quality of the breed, a steady improvement may be confidently expected. In other words, there are individual families in breeds that become, when compared with the average, either in a high or low degree, the excellence of the strain. In the selection of the breeders it is also to be remembered that very much depends upon the male as well as upon the female. Hence the propriety of a use of high selling qualities, and a step from a family deficient in that respect, although of the same breed, is quite likely to show a falling off from the record of the parent.

These principles, however, although believed to be correct, do not necessarily preclude the idea of improvement from parents not of registered or pedigree stock. There are instances in which an occasionally fine milking qualities to be found in cows of the so called native cattle that cannot be traced back to any ancestral stock. With such a dam and a male from a family of superior milkers, an improvement is not only possible but probable. At the root, it may be expected that the best traits of the mother will reappear in her offspring. Through careful selection and breeding for a series of years, not only has great improvement in cattle results, but it is in this way that some distinct and valuable breeds have been formed, says the agricultural editor of The New York World, authority for the foregoing.

Clover Rust.

Of this disease, which differs from two other diseases of the red and white clover of minor importance, it is said that it has not been long known in America, but has prevailed to such an extent during the several wet, cool seasons preceding 1889 in many sections of the northern states that it cannot be regarded as one liable to affect seriously under conditions favorable to its development this agricultural crop. In the scientific discussion of this parasite, which is described in a bulletin of the botanical division of the Agricultural Experiment station of Cornell university, while the description of its different forms and stages will no doubt be readily understood by botanists and microscopists, it will not be so easily comprehended by farmers.

As a summary of the matter, so far as it has been investigated, it is amazing to be told: First—That the early crop of red clover is not likely to suffer injury from the rust. Second—As the second crop is likely to suffer greatly if the mildew season is cool, and as clover becomes a valuable fertilizer when plowed in, the fields should be carefully watched in such seasons, and the crop might be plowed under to advantage. Third—Burning the clover fields in the fall or spring, if it does some effect in checking the spread of the disease during the next season, but the application of fungicides seems impracticable.

Mowing Orchards.

W. Scamerville told at the Minnesota Horticultural society that he manured his bearing orchard every year at the rate of forty loads to the acre, mulching thoroughly. He has trees that have stood twenty eight years that are as healthy as they were twenty years ago. He sold four tons of apples this season from an orchard seven by nine rods in size. With this manuring his trees bear every year. Protecting fruit trees to enhance a tree, and hence the importance of feeding bearing trees, while cultivation only of young ones may be sufficient.

Things Told by Bee Keepers.

Doolittle says: If you wish a large yield of section honey keep prolific queens and let the brood combs alone after they are once filled with brood in the spring.

An English correspondent advises that tea leaves in a pan of water be kept for drinking places for bees.

Dr. C. C. Miller says in Gleanings in Bee Culture: Bees in cellars are always quieter—at least into ante—just after a windy time, whether cold or warm. A still, sunny time is worst. Don't tell me cellars need no ventilation.

Farm, Stock and House advises in painting hives that dark colors be avoided, for in extreme hot weather the cells in such hives will melt down, while in a hive that is painted white no damage will be done.

Bees serve as active agents in the fertilization of plants, and it is generally acknowledged that they are not destructive to the same.

In reply to the query, "How do you keep brood combs when not in use" the editor of The American Bee Journal says: The best way will take care of the empty combs in the warmest season better than you can do. In winter they should be tested up tightly, after being thoroughly fumigated with sulphur, if they have any moth miller in them.

Mr. Turpin has introduced into the United States comes a joint resolution for an amendment to the constitution providing for the election of senators by vote of the people. There are those who go even further than this, and hint that if the senate were abolished altogether, and all the national business left to the house of representatives, the country would be the gainer.

The Tail of a Comet.

It is a wonderful sight to see a comet of average height with hair so long that it reaches to one foot, but what would you think of a hair outlet 200,000,000 miles long? These erratic celestial adventurers called comets are sometimes seen in the evening twilight they resembled the flowing hair of a woman. Their switches in the sky have been seen 100 deep, long, which is more than the distance from the earth to the horizon. In the olden time the appearance of a comet was a dreadful event. The strange visitors struck terror to the hearts of ignorant and superstitious people, because it was thought to be a sign of the wrath of Jehovah, and that it presaged war, pestilence or famine. It was also a thing of dread because of fear that it might come into the earth and kindle all things in a fiery conflagration.

But, thanks to scientific research, in these latter days we know that the flaming comet is no harbinger or a scourge. The strange visitors are known to be composed of a mass of matter so rarefied that we can see through the nucleus or head of a comet clearly demonstrates that it is a solid body. It is thought by astronomers that the sun, or a planet in the light that its weight is far less than that of the earth's atmosphere. It is probable that the comet is composed of gases, or vapors for its constituents of their orbits.—Exchange.

"Cole" and Cinderella.

On one of the cross roads in a Sixth ward one crooked one early one morning not a little girl plays in pours out. She carried her of blouse and a pair of pants on her arm. She was evidently employed down in one of the big shops.

As the girl passed the grocer's open fell upon her face and was seen by with amazement and delight. She stood in a very worn leaves of lilies. A pretty look for the grocer's eyes to rest upon, and he thought it was a pity that the girl should be in the big shops and not out of cinderella. Those were thoughts of just such beauty as the shop where she worked, and her eyes have fallen upon them and recognized them somewhere as part of the landscape of her daily drudgery. But the sun had been given her for her very own, and she measured it as though its various were a hundred times its weight in gold.

Behind the little girl stood fourteen years and the Eighteenth street corner the road the girls every time, times, and at such reading she seemed to enjoy it more longer than before. Was the sun shining the fourth time when a tall, good looking young woman, who was talking to a young man of the type, a gentleman, turned to see and exclaimed, "Hello, Cole!"

A moment later the grocer shouted out "Good morning, Cole!" The girls said her book and quickly and the book fell to the gutter. Then she and the tall young man as left the car together.—New York Evening Sun.

Pretty Good Stuff.

A friend of mine being ordered by his physician to drink a certain kind of mineral water, and being impressed with the importance of obtaining the exactly water he prescribed, he set off at the Saratoga springs, called at about a dozen dong stores before he could find one having the "remarkable" mineral spring water. He took the water at the place for a month or so and feeling it very beneficial, and complete ally recommended it to his friends, several of whom also became steady drinkers of it.

A few days ago he took a fresh friend to try the wonderful water, and was served by a new clerk. After drinking his glass of the water he turned to the clerk and complacently remarked, "Ah! this is very different from the bottled stuff you get down in New York!" "Why?" remarked the unsuspicious new clerk; "we make this right in the store here after the original formula, and when you buy from us you know exactly what you're getting!"—New York Sun.

Troubles of an Inventor.

Paul Geiler, an inventor, says: "I've been struggling for the work of solving a perpetual motion. Success is a million of dollars. I have almost perfected my invention, and the little which stands between me and those millions is a trifle. Every time I think that I have the thing perfected, I find that I have neglected the proper thing, and after a month of hard and careless nights this perpetual the total another failure fairly drives me wild.

"I often dream of it—or rather I have nightmares. My dreams contain other dreams, one within another; wherein the joy of success ends in despair, or vice versa. It is terrible. Sometimes I get up one over inventions. At times I do only wish I had never commenced this thing, but was still plodding along at my bench. Then I go at it again with fresh spirit and renewed hope."—New York Herald.

Instructive.

There was an interesting illustration of the change in the industrial position of women the other day in a small private boarding house in the suburbs of Boston. It was evening, and the two boarders, who were single women employed in the city, were going out to the evening meal at the same time that the master of the house was putting on a long kitchen apron preparatory to assisting his wife with the supper dishes. The boarders, having lived and worked until one of the boarders inadvertently sang a line of an old women's signal song, saying, "And the men will tend the kitchen, by and by."—Boston Transcript.

The Largest Building.

The largest single building on the globe is said to be the Fredenra, a modern government house of Vienna. In it are 1,500 rooms, arranged in suites as well as separate apartments. Two thousand one hundred and twelve persons live under the one great roof, a population sufficient to make a city large enough to incorporate and furnish with a full set of officers. The immense building has 156 staircases and 52 entrances. The building is heated by one often deliver 1,000 pieces of coal matter of this house in a single day.—St. Louis Republic.

No Wonder.

A woman at the Syracuse depot gave a man his baby to hold while she went to her baggage. The baby gave the man one look and fell back dead. When they came to investigate they found the man to be an old inchiner who had been cured of cases of breach of promise.—Detroit Free Press.

Indian Superstitions.

"Beggars' lice," or "ticks," as they are called, which stick to the clothes of every one who wanders in the woods, are thought by the Indians to be a good omen. A tick made of the ticks will make frogs stick to the hand, and what is more, it signifies rain in four or five days. It will be a fortunate year for your crops in will be a fortunate year for.

Ah, no wonder the whole list. Children enough such fancies may come in, but they are not to be an Indian. Moreover such notions constitute the first crude conceptions which ultimately ripen into the most scientific realities of today.—Youth's Companion.

Know you will be fine for one or a week which from overdoing, weakness, stomach and liver, saying "I wish I had taken Brandreth's Pills in time." Brandreth's Pills have been used for 60 years, and are the best medicine to regulate the system when out of order. Sold by all druggists.

$500 REWARD

Will be paid by the proprietors of Dr. Bull's Cough Syrup for a case of cough, cold, or sore throat it does not relieve when taken according to directions, and the cause of failure proved to be the fault of the proprietors. Sold by all druggists. Price 25 cents.

LEGAL NOTICE.

In the matter of the estate of Robert T. Smith, deceased.

NOTICE IS HEREBY GIVEN THAT the undersigned administrator of the above entitled estate of Robert T. Smith, deceased, has filed his final account of said estate with the clerk of the probate court of the aforesaid estate, and that said court has appointed fourteen days from and including the date hereof for hearing said account and the settlement of said estate, when and where all persons interested in said estate may appear and show cause why said account should not be settled and the administrator be discharged from his trust, and the heirs of said deceased be entitled to distribution of said estate.

Dated February 26, 1891.

ELIZA JENSON JONES,
Administratrix of the Estate of Robert T. Smith, Deceased.

NOTICE TO CREDITORS.

Estate of Mary Atwood, Deceased.

NOTICE IS HEREBY GIVEN BY THE undersigned administrator of the above entitled estate of said Mary Atwood, deceased, to the creditors of and all persons having claims against the said deceased, to exhibit them with the necessary vouchers within six months after the first publication of this notice, to the undersigned at the residence of said deceased, in Salt Lake City, in the county of Salt Lake.

Dated February 26, 1891.

MILLICENT ATWOOD,
CHRIS ANDERSON,
Executors and Executrix of the last will and testament of Mary Atwood, deceased.

NOTICE TO CREDITORS.

Estate of John Nuth, Deceased.

NOTICE IS HEREBY GIVEN BY THE undersigned administrator with the will annexed of the estate of John Nuth, deceased, to the creditors of and all persons having claims against the said deceased, to exhibit them with the necessary vouchers within six months after the first publication of this notice, to the said administrator at the residence of the undersigned, Salt Lake City, Utah.

Dated February 23, 1891.

T. C. ANDERSON,
Administrator with the will annexed of the estate of John Nuth, deceased.

NOTICE TO CREDITORS.

Estate of Mary Yates, Deceased.

NOTICE IS HEREBY GIVEN BY THE undersigned administrator of the Estate of Mary Yates, deceased, to the creditors of and all persons having claims against the said deceased, to exhibit them with the necessary vouchers within six months after the first publication of this notice, to the said administrator at his residence in the Territorial Penitentiary, in Salt Lake City, Salt Lake County, Utah Territory.

Dated Feb. 26, 1891.

J. H. MOYLE,
Administrator of the estate of Mary Yates, deceased.

NOTICE TO CREDITORS.

Estate of William Bennett, Deceased.

NOTICE IS HEREBY GIVEN BY THE undersigned administrator of the estate of said William Bennett, deceased, to the creditors of and all persons having claims against the said deceased, to exhibit them, with the necessary vouchers, within six months after the first publication of this notice, to the said administrator at the residence of the undersigned, in Salt Lake City, Utah.

Dated February 26, 1891.

ISAAC N. WADSWORTH,
Administrator of the estate of William Bennett, deceased.

NOTICE TO CREDITORS.

Estate of Janet Cope, Deceased.

NOTICE IS HEREBY GIVEN BY THE undersigned administrator of the estate of said Janet Cope, deceased, to the creditors of and all persons having claims against the said deceased, to exhibit them, with the necessary vouchers, within six months after the first publication of this notice, to the said administrator at the residence of the undersigned, in Salt Lake City, Utah.

Dated February 26, 1891.

ISAAC N. WADSWORTH,
Executor of the estate of Janet Cope, deceased.

NOTICE TO CREDITORS.

Estate of Roger Williams, Deceased.

NOTICE IS HEREBY GIVEN BY THE UNdersigned administrator of the estate of Roger Williams, deceased, to the creditors of and all persons having claims against the said deceased, to exhibit them, with the necessary vouchers, within six months after the first publication of this notice, to the said administrator at the residence of the undersigned, in Salt Lake City, Utah.

Dated February 26, 1891.

W. J. BEATIE,
Administrator of the Estate of Roger Williams, deceased.

NOTICE TO CREDITORS.

In the Estate of Thomas Harris, Deceased.

NOTICE IS HEREBY GIVEN BY THE undersigned, executrix of the estate of Thomas Harris, deceased, to the creditors of and all persons having claims against the said deceased, to exhibit them, with the necessary vouchers, within six months after the first publication of this notice, to the said executrix at her residence, Salt Lake City, Utah, in the county of Salt Lake.

Dated Salt Lake City, Utah, Feb. 26, 1891.

MARGARET RIVER,
Executrix of the Estate of Thomas Harris, deceased.

NOTICE TO CREDITORS.

In the Probate Court of Salt Lake County, Territory of Utah.

In the matter of the Estate of John Brown, deceased.

NOTICE IS HEREBY GIVEN BY THE undersigned, administrator of the Estate of John Brown, deceased, late of Salt Lake City, Utah, to the creditors of, and all persons having claims against the said deceased, to exhibit them with the necessary vouchers, within six months after the first publication of this notice, to the said administrator, at the office of Charles C. Pearson, attorney at law, 111 S. Main Street, Salt Lake City, Utah, being the place for the transaction of the business of said estate, in said Salt Lake City.

Dated February 26, 1891.

ANNA BROWN,
Administratrix of the Estate of John Brown, deceased.

PIONEER PATENT ROLLER MILL CO.

MILLS: 56 North Temple St., East.
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A Warning To Horse-Owners.

The Spill Nail in this Show certainly latest the horse from which it was taken is taken in Worcester, Mass. One point of the nail stuck out in the proper place for clinching, and so dropped the blacksmith who shod the horse. The point went in the direction shown in the illustration, piercing the leather part of the foot called the "quick," from which the horse was made unfit for use nearly two weeks.

Horses will not wantonly injure themselves by throwing off shoes if they can be easily kept on the horse. The cause is nearly always the fault of the nail. Spill Nail is the only nail that will not injure the horse. The cause is nearly all other nails. Spill Nail is the only nail that will not injure the horse. Spill Nail is the only nail that will not injure the horse. Spill Nail is the only nail that will not injure the horse