FARM AND GARDEN.

OBSERVATIONS AND EXPERIENCES IN LIFE ON THE FARM.

The Various Clovers and Their Several Requirements—A Sketch of the Grasses Grown About Which Difficult Questions Were Expressed Last Season.

Alfalfa, otherwise known as Lucerne, requires a rich, deep soil, and in such will produce several crops every season. From ten to fifteen pounds of seed are required to the acre.

COMMON CLOVER.

Alsike resembles in growth, duration, etc., the red clover. It thrives well in cold, wet and stiff soils. The rule in seeding is ten pounds to the acre.

Bokhar vetch or sand clover, is a deep rooted, herbaceous, hardy perennial plant, valuable for dry sands and inferior soils, upon which red clover will not thrive. It is useful in mixture for dry soil.

Red clover is a perennial but of very few years' duration. It succeeds best subtile in moist locations. The large red or pea vine clover, also known as English cow grass, is a valuable sort for plowing under. White clover is especially prized in lawns and pastures.

Crimson clover, a native of which is here reproduced from James H. Thorburn & Co's annual descriptive catalogue for 1891, is an annual with crimson flowers, about which many reports were made last season, some exceedingly complimentary, while others were not favorable. Thorburn says that "seeds late in the summer to furnish an early green fodder the following season; it is also excellent for soiling." Bost says, "It belongs to a warm climate, and is not so popular at the north as red clover."

Japan clover is a perennial, valable only in southern localities, where it thrives in any soil. It makes a fair hay, and stock eat it readily when green.

Potato Experiments.

Of 122 varieties and seedlings of the potato tested the past season at the Wisconsin station, the following ten were much productive, yielding in the order named: Seedling from C. E. Angell, Rose Beauty, Monarch, Dupuy, Late Beauty of Hebron, Mellaly, Alexander's Prolific, Seneca Red Jacket, White Beauty of Hebron and Wisconsin County. Placed in the order of their table quality, these various sorts rank as follows: Alexander's Prolific, White Beauty of Hebron, Late Beauty of Hebron, Dupuy, Monarch, Wisconsin Beauty, Seneca Red Jacket, Rose Beauty, Mellaly, seedling from C. E. Angell. Both with cooking and whole tubers, the largest merchantable yield came from the earliest seedling, though the increase of non-marketable yield was by no means in proportion to the increase of seed. The proportion of small potatoes increased with the increase of seed. The smaller whole potatoes gave inferior results to the smaller cuttings. Two single eyes in a hill yielded decidedly more than one, without a corresponding increase in small potatoes. No loss in yield followed planting in hills as compared with drills. The results were decidedly opposed to cutting off the "seed end" of the potato before planting. No advantage followed sprinkling the cuttings with land plaster before planting.

An Ingenious Contriverer.

A Wisconsin farmer, A. K. M. Pomeroy by name, sent to The Farm Journal not long ago the drawing here reproduced, of a tool for use in building or moving rails or plain wire fence. It takes two to operate it—one to guide and one to

A BEND TO THE IN BUILDING WIRE FENCE.

turn the tool. The cut is so plain it needs little explanation. The uprights are braced by iron rods, and a pin passes through one of the standards prevents both the wheel and the rod from revolving.

Mr. Pomeroy facetiously remarks: "If you do not want it yourself you can lend it to the neighbors. Mine goes all around the neighborhood."

Oats Worthy of Trial.

Of the large number of varieties of oats tried at the Illinois agricultural experiment station, the so-called "rust proof" red or dun colored varieties from Texas gave the largest yield in 1890, but the smallest yield in 1889. Among the white varieties the Early Dakota and Pringle's Progress gave the largest yields. Of the black varieties Black Russian and New Dakota Gray stood first, with Black Highlander next in order.

A Word About Timothy Seed.

From careful germination tests made by Professor Goff, of the Wisconsin station, it has been found that the boiled grains of timothy seed in their germinate well are rejected; their vitality is as low as those not boiled; also that timothy seed, when properly stored, is fairly reliable up to five years old.

Just Stop Dodging.

"Why don't you marry, Mr. Bachelor?"

"Well, I've been trying for years to find a girl."

"Have you got any money?"

"Enough, I guess."

"Then you just hold still a while and the girl will find you."—Washington Star.

QUEEN, DRONE AND WORKER BEES.

The Three Kinds to Be Found in Each Colony—All About the Mother Bee.

The queen is the mother bee, and the most important personage in the hive. The queen, as compared with other bees, is long lived. It is not unusual for her to do good work for from three to four years. All depends upon her excellence and vigor. Some queens cease to be fruitful at the end of one year, others at two or three etc. When they no longer lay impregnated eggs—cease to be fertile—the workers rear a new queen and destroy the old one.

It is the queen's edicts to keep the colony well populated—in a word, to lay eggs. A good queen lays from 2,000 to 3,000 eggs per diem, or nearly double her weight of eggs per day. Queens differ, however, in the matter of fecundity; the good ones keep the hives populous with active, profitable bees, while inferior ones, although they may lay eggs for a time, are never profitable. These imperfectly developed bees are, according to Root, the result of trying to raise a queen when there are no few bees, or when the larvæ with which they are supplied to rear a queen are too old—that is, too nearly ready to emerge. Professor Cook says that this lack of fecundity may be due to disease, improper development or to special race or strain. The activity of the queen is governed largely by the activity of the workers. According to Professor Cook, as the weather has fed the laying queen, it is more than probable that with no nectar to gather the food is wanting, and as the queen is unable to produce the eggs which demand a great amount of nutritious food all ready to be absorbed.

Queens begin to lay when about eight to ten days old, as a rule. If a queen is not fertilized is, say, a fortnight from the time she is hatched she will frequently begin laying without being fertilized

QUEEN—DRONE—WORKER.

at all, and is commonly known as a drone laying queen. The queen is an important cultivated of a hive only so long as she is useful. When her usefulness ceases she is destroyed with as little ceremonious as she has the drones.

The drones are the male bees, and are generally found in the hive only from May to November, though they may remain all winter. There are in nature several families and often thousands in a colony. The workers may be and is often killed by the queen. The worker or neuter bee is the undeveloped female—the bee that do the work except that of laying eggs. There are from 10,000 to 60,000 workers in every good colony.

Why Poultry Does Not.

American Cultivator says: Fine crosses with mongrel or standard breed of fowl are pretty sure to produce good results. The man who makes the cross knows the characteristics to which to breed to, and the cross generally secures them. But these good fowls, though often valuable for egg producing, are no trustworthy for breeding. Their progeny are not grades but mongrels. Changing the males in a flock is often advised, but if the new stock are mongrels there will be little advantage from this. The flocks on farms all over the country are largely of this mongrel stock, and this is one reason why so many have poor success with poultry. Forty or fifty years ago the common draughtl fowl in this country, though originally improved, had been bred long enough so that it had become almost an established breed. For, if any of these old fashioned fowls are now left anywhere, as a consequence the introduction of new blood in every flock not absolutely pure bred is a necessity every two or three years, and in every case males of pure blood, and as far as possible of the predominant strain of the flock, should be introduced for crossing.

Pottering Orchards.

"Ought apple orchards to be pastured?" was a question asked at a New York farmers' institute.

Mr. Van Alstyne answered: "I pastured an orchard of eight acres with sheep two years, and the fruit was improved. Sheep droppings are very valuable for the trees. I shall continue to keep sheep in my orchards."

Col. Curtis said: "The advantages of swine are that they do all that the sheep do in scratching the land, and they root up the larvæ of the codling moth which have escaped from the apples and are hidden just above the ground. The pigs will destroy all of these, which the sheep will not. All other larvæ will be in similar danger.

When to Buy Bees.

Professor Cook says on this subject in his book on bee keeping: It is safe to purchase any time in the summer. In April or May last of the year you will pay more very strong stocks, if in the latitude of New York or Chicago—it will be earlier further south—you will be able to pay more, as you will secure the increase of both honey and bees. If you desire to purchase in autumn that you may gain the experience of wintering, either demand that the use of winter you purchase bees the safe wintering of the bees, or else that to reduce the selling price so that you may gain the experience of wintering. Otherwise the more and better purchase in the spring. If you are to transfer at once, it is the attitude that you buy in the spring, as it is vexatious, especially for the beginner, to transfer winter bees are crowded with brood and honey.

Bee and Honey Notes.

Bee hives are hives with bees across the top to which the combs are attached.

Bees do not make honey, but gather it from the flowers.

The latter way instant in the bee hive, time it begin in a small way and gradually grow into it.

Every apiarist should aim to keep his place in extreme, and no place be neat and clean.

Hardly thinks 3 pounds or less of honey will make 1 pound of wax. Nimmins has this opinion; tradition, 20 pounds. "Don't we stick to that 20 from mere habit?" asks Dr. Miller in Gleanings. "I do. The bees have a quite experienced of late years to confirm it."

The parent colony is the colony from which a swarm has issued.

JUDGE MINER DISSENTS.

He Thinks The Mandamus in the Variety Theatre Liquor Case Should Issue.

Below is given the opinion of Associate Justice Miner of the Territorial Supreme Court in the case of E. J. Perry vs. Salt Lake City:

I am unable to fully concur with the majority of the court in this case.

The relator appears to have complied with all the requirements of the statutes and ordinances, and it cannot be claimed that the place in which he proposes to carry on the business is within the prohibition of the statutes or ordinances.

The question then arises, can the City Council, under the power to regulate conferred by the charter, impose additional requirements? If so, is such power to be exercised? Must it be by ordinance, so that the requirements, prescribed by the statutes, will be uniformly and uniformly upon all who under the same circumstances, providing the requirements of the statutes, or may it, in the discretion of the council, authorize the licensing of the applicants with all the provisions of the statutes and ordinances, and, if so, may it, in the discretion, arbitrarily grant or refuse such permission to some and not to others? Is the power to be exercised in the interest of the public, or may it be exercised for any reason or no reason. It seems to me the legislation should properly be for uniformity.

If the statutes conferred upon the Council any such discretionary power, then as a matter of common counsel, we have no right to interfere. But the statutes do not confer such power upon the City Council to extend their trouble and punish their enemies, but they have conferred upon them authority to make ordinances for uniformity of action. Some numbers may vote against the applicant because he is their enemy, because he is a Democrat, because he is a Mormon, because he is a Gentile, because he is a Republican