FARM AND FIELD.

TREES AND THEIR USES—THE ELM.

The Elm, or Ulm, as they call it abroad, is a fine tree, and well known to us all. It lives a long time, but its timber is most useful when it is cut down at about the age of seventy years. It is hard wood, but not so durable as oak or fir. The trunk is straight and strong. One tree in Switzerland is said to have been seventeen feet in diameter. The leaves differ very much in different sorts of elms. Some trees have very small and numerous leaves; the leaves of others are large and long. The smaller the leaf, the longer it remains on the tree in autumn.

The elm is one of the most useful of all trees. It grows quickly, and is content with almost any soil except a very wet one. It likes best a stiff, strong land.

A French king, Henry IV., made elm-planting very common in his country. His great minister, Sully, caused these trees to be planted in churchyards and hedgerows, and many old trees used to be called Henri Quatre, or Sully. No tree forms so beautiful an avenue as an elm. There are some fine elm avenues at Cambridge and Oxford. Some say that the elm was not grown in England until some of the crusaders brought it here from abroad. Nor did the English elm find its way into Scotland until the two kingdoms were united. The magnificent elms at Madrid are said to have been transplanted from English soil by Philip II., the consort of Queen Mary.

Elm wood is used in ship-building, especially for the keel of the vessel. The naves of wheels are also formed of it. It is man's last home very frequently, being much employed by the undertaker in coffin-making. The cabinet-maker is very fond of those great knobs or warts which grow on ancient elms. When polished they look very handsome. Elm timber may be made like mahogany, when boiled and stained with a red dye. One valuable quality of the elm is its resistance to the rotting action of water. Pipes for conducting water from one place to another are almost always made of this wood. The tree is useful, too, in other ways. The leaves will feed cattle, and when boiled are good for swine. The Russians make tea of one sort of elm, and the Norseman dries the inner bark and grinds it up with his corn.

In wine-producing countries, young elms are generally chosen as props to the vine. The poet alludes to this when telling us how Adam and Eve employed themselves in Paradise:—

> "They led the vine
> To wed her elm . . . and to adorn
> His barren branches."

Many insects spoil the timber of the elm, especially the goat moth, and another little creature about half an inch long. This latter pest bores holes through the bark and lays her eggs. When the beetle comes out of the egg it does immense harm to the tree. As many as 80,000 have been found in one elm.

The tree is also subject to a disease somewhat like cancer, and this often happens when it grows in a soil that does not suit it.

The Crawley elm, between London and Brighton, is hollow. It forms a room, floored with bricks; it has a door with lock and key. In the hollow elm of Hampstead there was a staircase leading to a turret on the top, where six people could sit. There were sixteen clefts in the trunk, which gave light to the staircase. Perhaps the finest elm ever known was one which grew in county Kildare, Ireland. Its two principal boughs fell suddenly one calm night, and they fetched five guineas in the market. The gigantic tree was uprooted by a violent hurricane, and when the sawyers got to work, it was found to be quite hollow, and of small value as compared with its two great branches.

The wych-elm is the Scotch, or mountain elm. Its trunk soon divides into long and somewhat drooping branches. When long bows were in use, many were made of the wood of this tree. Very good ropes can be formed from strips of its bark. It is also highly valued by the carriage-maker. Its wood is nearly as good for shafts as that of the ash. The milkmaid, too, in the midland counties, likes a bit of wych-elm wood in her churn. She says it helps the butter to come quickly.

The wych-elm is considered more picturesque than its English sister, but this is a matter of taste, which each of our young readers may like to decide for himself.—*Chatterbox.*

WEEDS IN AGRICULTURE.

The relation of weeds to agriculture is so intimate that farming has almost come to be a business of weed killing. It is therefore to the point to show how this destruction can best be done, and not spend any time on that old and trite growl of showing up a weed in its worst light. It can be taken for granted that a weed is a bad plant and one that is not desired, and the vital part of the matter is to know how to best rid the land of the pests.

In the first place, it should be understood that a weed is not so different in constitution from a useful plant as to be killed by any agent, or in any way that will not also destroy the crop plants. There has frequently been a cry for some substance that could be put on the soil that would make it clean of weeds. This reminds us of the man that we saw not long ago that had a kind of manure to put around the apple trees to keep the coddling moth from the apples. There is nothing that can be dropped in a hill of corn that will make it weed proof, and at the same time permit of a vigorous growth of the corn. No panacea can be applied to a field of wheat that will destroy the Quack grass, and leave the crop unharmed. When a farmer has to deal with weeds, he must adopt methods which if applied to useful plants would lead to their destruction.

Weeds have seeds! This is not a new fact by any means; but it is here stated that the following part may be made the more impressive. Weeds grow from seeds just as other plants do; they may have other methods of propagation, but they go from place to place in the seed form more generally than any other way. Many of our weeds came from Europe, and then crossed the sea as seeds. Many of our weeds are spreading westward, and they do it by being carried in various ways in the form of seed. The first measure to be taken against weeds is therefore to not sow their seeds. Clover seed has probably been the vehicle by means of which scores of kinds of weeds have become wide spread. For example, a farmer in Michigan buys clover seed from New York or Massachusetts, and sows his fields with it; he may at the same time introduce into his mellow soil the narrow-leaved plantain, the ox-eye daisy, or some one or more other obnoxious plants.

The easiest way to kill weeds is while they are in seeds, provided the weed seeds are recognized. Every farmer cannot examine every seed he sows; but he can be very guarded in buying seeds, especially of those kinds that from their small size may be the means of introducing untold trouble into otherwise comparatively clean land.

Next to the keeping of the weed seeds out of the ground is the killing of weeds soon after germination. There are a number of reasons for this. First, they can be killed with greater ease while young. Take, for example, the weeds in a root crop; if they are destroyed as they first make their appearance, the work is light to what it is a few weeks later. In the second place, the effect on the crop is not so bad. If weeds are left to grow until they are of considerable size, they extract a great deal of nourishment from the soil that the crop plants need, and in not getting it they are enfeebled. Every weed that grows takes the food from the soil, and as weeds are better able to survive in a struggle with cultivated plants, they will, if left to themselves, come out masters of the situation. The ancestors of the weeds have had to steal a living, so to speak, and it has become a second nature for weeds to get into the ground as quickly as possible.

The weeds are very sure to look out for their own kind of kindred, and will ripen and spread a large field of seeds. Look at the Canada thistle, one of the worst of weeds. It not only ripens a host of weeds, but provides each one with an airy balloon by means of which it is taken far away by the wind, thus securing a wide dissemination of the seeds of this pest. One farmer may keep his thistles from growing, while an adjoining neighbour lets his thistles seed down the whole region round about. Then there are the tick seeds and "beggar's lice," and "pitch-forks"—all weeds, and bad ones, that leave their seeds provided with hooks to catch unto the hair and wool of animals, and are in that way carried far from the plant that produced them.

If weeds cannot be killed in the seed—and it is out of the question to kill them when young—the next best thing is to keep them from going to seed. This is a difficult thing to do, and whatever may be said on weed-killing, it will be a long time before we have no weeds. Does it look like extermination when by actual count a single "Passley" plant has been known to produce a million seeds! and that in the short space of a few weeks?

"Weeds are thoroughly bad!" In one sense they are, and in another they are not. Indirectly they improve our agriculture, making it more systematic, offering a bounty or premium for labour. Without weeds, the lazy man would stand more nearly on a par with the worker. Without weeds, the soil would not be tilled as much as it now is, when properly tended; they may be just that sort of a spur to industry that it is well for every farmer to feel. This is certainly looking on the bright side of the matter; the side that says to the eternally vigilant that theirs is the victory.

Weeds may be like sins, or rather the temptations to sin, which overcome the weak but add strength to those that come off conquerors. This is a closing argument in favour of being a strong fighter in the battle against the weeds.—*Southern World.*

AN IMPROVED HARROW.

An ingeniously constructed harrow, in which all the parts in its movements in any direction will conform to the undulations of the ground, is patented by Messrs. Henry R. Burger and Joseph B. Simpson, of Fincastle, Botetourt county, Va.

The outer beams of the harrow, to which the teeth are attached, form a square harrow. Each beam is formed of angle iron, the flange of the iron projecting upward on the outer edge of the beam, thus making a harrow beam stronger and lighter than the ordinary construction. The ends of the beams are perforated to receive hooks that project upwardly from opposite corners of a triangular metallic block. This block has a central socket extending its entire length, into which is inserted an adjustable rod, which passes thence through a hole in a flange projecting downward from the metallic plate, provided with a series of adjustable holes, into any one of which the