Darwin who, I believe, spent years studying their habits and utility, estimated that on a meadow they would bring to the surface not less than one-fifth of an inch of rich soil per acre in one season. It is said that there are 90 species of them in North America alone, and a dozen or so in any locality. As soil experts they pioneered the way alike for practical plowmen and professors. They make the soil porous and permeable to air and rain, help plant roots to go down, fertilize the bed for thousands of seedlings, and spread an earth mulch about to conserve moisture. All honor to our leader and ally, the earthworm!

The old mare having broken her bridle blind I called on the village harness repairer, who does not pose either as a genius or a political economist. What serves him better is a chunk of commonsense. Talking of production and the crops he shrewdly observed as he jabbed the awl through the strap, "They can't starve me, I've got five acres hitched on behind the shop to grow stuff for the missus and I and our horse and cow. Nothing safer than being anchored to a bit of land in war time or any other time."

The root maggot will probably soon be getting in his deadly sub-earth work on the early cabbage and cauliflower plants and onions. In many farm gardens he is the worst pest of the season. An old friend and a practical vegetable grower from the ground up tells me the best treatment is a handful of slaked lime or hydrated lime covering the ground about the plant or along the onion row. "That stops him from going down, and is far less trouble than tar-paper discs."

Persistent rumors of a federal election revive the perennial complaint of so few good farm members in the House of Commons. By the way, are there any in the Senate? A bunch of live farmers would surely feel out of place in that home for incurables, but they might raise it to the standard of a County Council. The notion that farmers do not support men of their own calling for parliament because of jealousy is simply childish "rot." Several constituencies, with the history of which I happen to be most familiar, have for many years returned well-to-do farmers of superior intellectual endowment, and if these are exceptions the more's the pity. The reasons why more of them are not in the national legislature are very plain—partizan politics, and the fact that the political machine is run from the towns where lawyers rule the roost, and I have no grievance against the worthy men of this profession, but they are not conversant with the conditions and needs of the foundation industry of this country. If we want to see something doing we had better discard partizan tags and get out of political ruts, and, as a parting shot, might I suggest to the good women who are receiving the franchise, that they do not permit themselves to be hitched on as trailers to somebody's political limousine?

ON THE WING.

# Fencing for the Present and Future.

It is a pleasant feeling to be able to leave home for a day or retire at night with perfect confidence in the ability of the fences to turn back the live stock and keep them out of the corn, grain or grass fields and in the pastures where they belong. It is unfortunate enough when the stock get into their owner's crops, but it is worse when they get into those of an adjoining farmer. Bad fences make bad neighbors. In contrast to the crippled, broken-down, snake fence and the sagging, limp wire one, view the layout on a well-kept and well-fenced farm. It is a pleasure there to see the properly-proportioned fields, divided by straight fences of wire, supported by and secured to posts set straight in line and at all the corners anchored firmly in the ground, keeping the stays upright and a proper tension on every strand. On such a homestead, too, the line fences, while affording no harbor for weeds and insects, act as an impregnable obstacle to the animals which at times seem to have an insatiable desire to try new pastures and explore new fields. Such a holding suggests stability, business methods, cleanliness and prosperity.

There has been wonderful progress during the last two or three decades in respect to the theory of fence building. Brush, stump and stone fences were contemporaries more or less. The pasture fields usually included an area of uncut timber land or slashing, and about these a brush fence did service. By rolling a few old logs and stumps into line the foundation for the superstructure was laid, then saplings and small trees, in that line, were cut sufficiently so they would fall upon the accumulation which was to be a fence. Since they were not completely severed from the stumps, they remained in place until the elements charred and decomposed them, and they settled to the bottom of the line of debris and continued to be a foundation upon which each year was piled fresh brush, young saplings (which perhaps in the meantime had grown up in the place of those previously used), stakes, stumps and anything at hand to make the fence appear like a formidable barrier. Many readers no doubt can yet remember going over the line each spring, for it was of necessity an annual event, and making the needed repairs. With posts and wire so high in price, we cannot fail to entertain fond recollections of the primitive brush structure, even if it was at times more fake than fence.

The clearings at this time were enclosed by walls of stones which "the farmers had raised with labor incessant," or by large stumps, with huge roots still attached, drawn into line. Stone fences were almost imperishable, and the stumpy construction remained long in place. Stone and stump fences would outlast any wire fences now made, but their day is past and we look upon them only as relics of pioneer times when land was plentiful, when so many noxious weeds and injurious insects were not lurking about in search of protection, and when our forefathers invited neighbors to the logging bee and entertained them right royally. Those were hospitable and convivial times, many monuments to which still stand in Eastern Canada.

When the land furnished no stones and the fields were not yet stumped, small logs were laid in the fences, and out of this practice grew the semi-modern rail fence. Small poles and split cedar rails laid four or five high, then staked and bound with a runner and top rail, became the common formation. This was the almost universal snake or worm fence which had so many promentories and inlets and occupied so much land. Unless in pasture the uncultivated strip grew weeds profusely, and insects found a safe haven beneath the rails and in the unplowed ground. When youths knew how to swing a hand scythe the industrious parents would often have them mow the triangular spaces along the fence and, in cases of extreme thrift, pull the weeds and grass away from around the stakes where the scythe did not cut them. This was usually done, however, more for the sake of patriotism than production.

Of all the farm fences the writer has ever seen or had anything to do with, the "pitch-pole" structure has left the impression of being the most impassable. Numerous pairs of cross stakes and the rails or sharp-pointed poles set pointing towards the north star, made a barrier that neither man nor beast would attempt to scale.

### The Transition Period.

There was a transition period in fence building, and we have not fully emerged from it yet. As timber became scarce the crooked rail fences which had served their day and served it well were taken down and replaced with wire. The sound rails from the dismantled, crooked fences were built into straight ones in different places on the farm. Many styles of straight rail fences have been put up, and one which has done good service is constructed thus: Two stakes about six and a half feet long are spread two and a half feet at the bottom and then crossed (over the line of the fence) about one foot from the top. They are driven into the ground and wired together where they cross. A top rail or rider is placed on the crotch and then two more stakes of similar length are driven in line with (not crossing) the fence, with about the same spread at the bottom as the other pair, and brought together at the top. The rail and stakes are wired firmly together. Four rails,

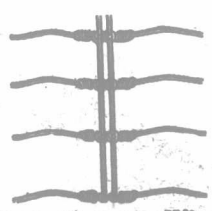

Fig.1—Splicing Wire.

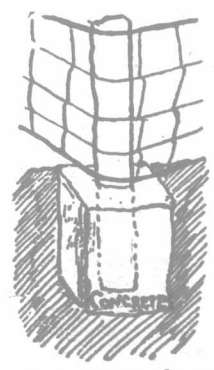

Fig.2—Post Set in Concrete.

with a space between each one, will fill the gap beneath. Each rail is wired separately to the stakes which slant the same way as the fence runs. This form of fence does not take up much ground, is braced four ways, is economical of rails, and if a rail breaks it can be easily replaced without interfering with the others.

The two types of fences illustrated in figures 5 and 6 have their advocates. Some might take objection to the former on account of the large posts required, but it is, withal, a substantial barrier to all kinds of live stock. While the fence illustrated in Fig. 6 can be erected without the large posts, the cross stakes might be objectionable to some. The styles illustrated in Fig. 15 appear quite formidable and substantial though somewhat antiquated, and do not make a neat, attractive fence, such as one would like to construct near the front part of the farm. There are many types of rail fences, but the straight one of some desirable style should be constructed where it is necessary to use old rails which are good for a few more years of service. Farmers have their likes and dislikes in this regard, and become expert in building the one particular fence to which they are accustomed. The old rails, until they find their way into the kitchen stove, can be utilized to good advantage, but eventually wire will replace them completely and the country shall see them no more.

### The Wire Age.

Wire fencing has already developed from a crude, somewhat unsatisfactory practice to methods and material that make for efficiency and attractiveness. The separate-strand fence, whether of barbed or smooth wire, gave good service, but there was no guarantee that it would stop all kinds of live stock. Some strands would sag if the posts were not numerous enough, and then trouble ensued. It is now practically out of date in the older-settled farming districts. However, on extensive grazing lands the woven wire fence proves rather expensive, and the ranchers find they can stop the cattle with three strands of ordinary wire. Some still use barbed wire for this purpose.

The woven-wire fence has revolutionized fencing. Horses, cattle, sheep, swine and poultry can all be stopped with different types peculiar to the needs. The old-fashioned bars and heavy board gates are being


Fig. 3—A Gate Opening, Showing Post Bracing.

replaced with neat, metallic makes, well braced and hinged.

The farmer's chief complaint centres round the galvanizing of the wire, which is an important item in prolonging the life of the fence. Galvanizing contains varying percentages of zinc which the war has advanced from three to five-fold in price. But before there was war or even rumors of war the trouble of unsatisfactorily galvanized wire was with us. Manufacturers claim that it is possible to produce galvanized wire consuming as little as 30 pounds of zinc to the ton of closely-wiped wire, and as much as 100 pounds of zinc to the ton of unwiped wire. The latter amount, they state, is not practical, because of the likelihood of the zinc cracking

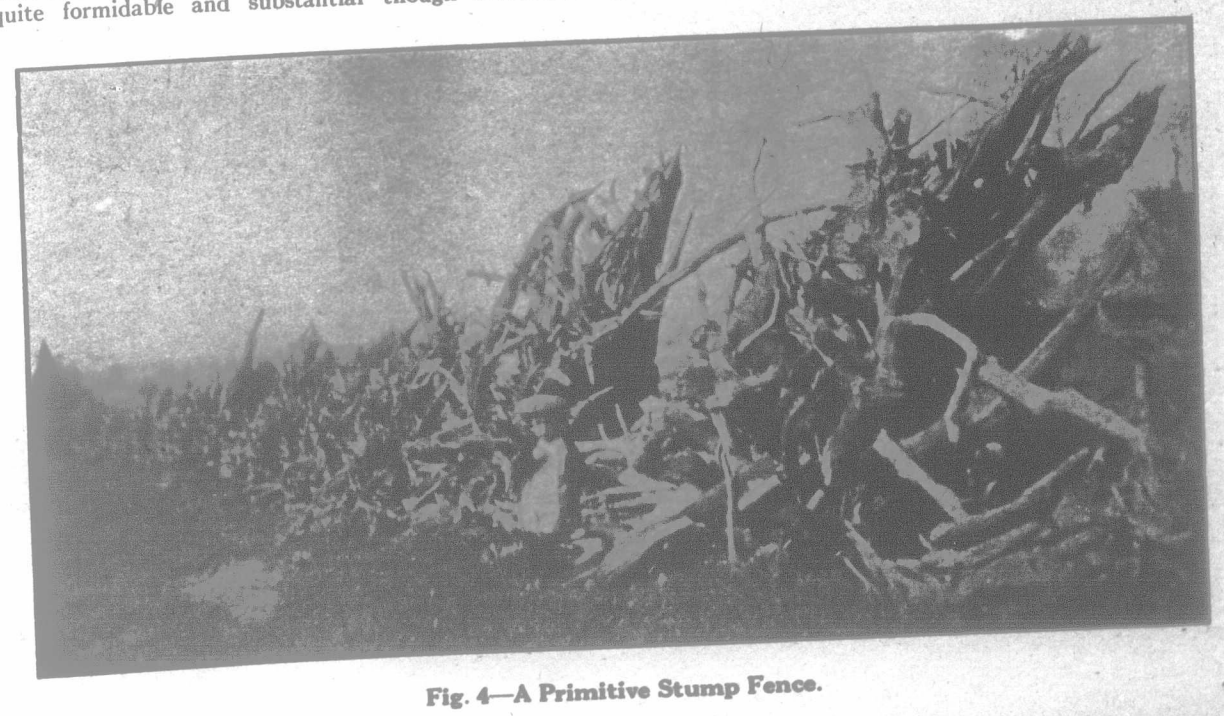

Fig. 4—A Primitive Stump Fence.