

## Rural Architecture.

### Roofing Materials for the Farm.

NO. 2.

In a previous article under this head we gave some account of Tiles as a permanent roof covering. We now proceed to mention matters of a more temporary nature.

The Celt, in his native place (where, from some reason or another, which it is not the province of this journal to discuss, he seems obliged to resort to all sorts of shifts), is one of the most primitive of roof builders. Rough poles must, of course, be had for rafters, and these are joined without much symmetry; various matters, such as brush, sticks, and other things of temporary growth, form the material to cross the rafters, the whole being covered with turf sods, which in the moist climate grow more or less together, and form a rude means, though not always effectual, of turning off the water. So far does growth proceed in this way, that Walter Scott, in some of his works, points out the roof of the cabin of this construction as giving promise of better pasture than a great deal of the surrounding land. Turf and sods, however, as a class of covering, will, we think and hope, never become a national material in Canada.

The first covering to our settlers' houses is, nevertheless, very little better, and certainly not more lasting, being often formed of basswood troughs, split out of small trees, the round side remaining in its natural state, the flat or split side slightly hollowed with the axe, so as to form a continuous channel for the water. These are made of a length equal to the entire breadth of the building they are intended to cover. They are ranged side by side, the round side down, until the surface is covered. Other logs, similarly split and hollowed out, are prepared, and are made to cover the interstices of the bottom troughs. The vacant spaces are stuffed with moss to keep out the wind. The upper or reversed troughs conduct the water to the under ones, and they carry it free of the building. The troughs form rafter and covering in one, and for the time are a most serviceable roof. Being such as the settler himself can make, there is no outlay, and they do not require a single nail in the whole roof. These troughs are, for shanties, or buildings with only one slope to the roof, very popular in the bush, and are constantly used on the first settlement of new land; but they are not lasting, and seldom remain water-tight for more than five or six years, if so long.

The next Canadian materials are sheets of elm bark; but these are also perishable, and have the double disadvantage of requiring a roof frame to support them. Such as they are, however, they are extensively used in all very new settlements.

Shingles invariably follow in the wake of these expedients; but shingles require lumber or boards on which to lay them, and nails with which to fasten them, all which are serious considerations. The getting of shingles, then, is a question which involves a good deal of thought as well as of exertion.

There is one kind of shingles, called clap-boards, which are free from these objections. They are made of oak, and split into lengths far greater than ordinary shingles. They are then laid side by side, lapping one another and breaking joint, and held in their places by a framework placed across them, loaded in some cases with stones of sufficient weight to keep them all in their places; but these may be considered rather a variety than a different species of the shingle roof.

Good pine shingles, well chosen, split thick, and carefully laid on, have been known to last forty years. Twenty years, however, is the general extreme duration of this roof: they wash away, rather than either rot or decay.

The great English, and indeed European succedaneum for the other kind of roof coverings is "thatch," and it is difficult to find a farm homestead in England, Scotland, or Ireland, without a specimen of this covering. In Canada, however, we must greatly improve in our agriculture before we can adopt the usual thatch of wheaten straw as an ordinary cover for buildings. Straw thatch denotes a superabundance of the article of straw: and here, unfortunately, we have universally a deficiency of that substance. Still, under most circumstances, it is cheaper than other materials. Thatch is made of every kind of coarse fibrous substance, and its equivalents--rushes, heath or heather, reeds, brush of all kinds when fine enough, broom, and even furze--are all used for the purpose, according to the plenty in which they are found, and the absence of other material. Indeed, in one part of England, where they grow a great deal of brushwood, and manufacture it into hoops for the West India and other tropical trades, to band sugar barrels with, the hoop shavings and splinters are fastened on the roofs of the labourers' cottages, and make a very tight and lasting, but extremely bizarre and ungraceful covering. They are put on to the thickness of at least fourteen to eighteen inches, and as they can neither be smoothed, nor trimmed at the edges, they look as if the cottages were surmounted by coarse heads of hair, in most extraordinary confusion, and quite disproportioned to the houses.

There is no kind of common "stalky" substance that is not in some way or other used for thatch in Britain, but the chief article, as we said before, is wheat straw. This is used "threshed," for ordinary purposes, and unthreshed for the covering of dwelling houses, ornamental cottages, and other purposes of a superior nature. Unthreshed straw has the heads or ears of the grain cut off, and is then bound in bundles for the thatcher. Threshed

straw is drawn by the hand from the heap or straw stack, then roughly sorted into untied portions or parcels called "hands," roughly combed out with a rake, and piled up "athwart and across," in heaps, well wetted to make it lie close, and finally weighted by placing heavy substances on the top. Here it remains for a few days for the thatcher, and is finally laid on the building without other preparation. The actual method of thatching would take too long to describe in this place, though we may do so in a future article.

Thatching is of two kinds, "over-sparred" and "under-sparred;" the over-sparred takes the least straw, and is used for ricks and other temporary purposes. It is also used in repairing other thatch. Under-sparred thatch is used for permanent roofs.

The chief objection to thatch in Canada will always be, danger from fire. It is, where there are many sparks or chimneys, and where all use fires so extensively as we use them here, a very dangerous roof. It is, however, very warm and effective.

In some places in England, where building materials are dear and straw is cheap, the walls bear a most ridiculous proportion to the roof. Barns are often seen with a dwarf wall of from four to six feet high, and then a monstrous roof, reaching, perhaps, from twenty to thirty feet high, and with a great span. The celebrated "Tithing Barns," near Goodwood Park, South Hants, England, are of this nature, and similar buildings are often seen.

The same preponderance of roof over wall is also seen to a great extent in the low countries of Europe, such as Holland. The roofs are of tiles (of course supported by timber), and are often six times the height of the walls.

Slates are the next principal roofing material, but they will for many years be too dear for farm buildings. There is no doubt that slates form one of the best roofs in the world, and as we are yearly making new discoveries in the geological formation of Canada, slates may yet become a most important aid to the farmer.

Tiles, however, are likely to form the farmer's mainstay. Draining tiles we must have; and where they make drain tiles they can make roofing tiles with a mere change of mould, and either can be burned in a kiln of very simple construction or with bricks, as before described.

In England, many buildings are "tile-hung," that is, walls of inferior materials are covered with tiles to keep off the weather, like our clap boards, or shaped and formed like bricks, when the buildings can hardly be distinguished from the latter material.

VECTIS.

We are not certain that for this climate tiles may not be found more serviceable than even slates, which are very apt to split by the action of our severe frosts.