

which they support, and, when braced from the purline plates, make a very strong kind of roof. A decided advantage of the plank-frame over the timber-frame on the old plan, is that the mow is clear of beams, there being only the one beam, made of three 2 x 10-inch plank, in each inside bent. The top rafters are fastened together at the top with 2 x 4-inch collar ties, and the hay-fork track is put on them, instead of on the rafters, which allows the hay car to run clear of the main supports.

The end bents do not need any truss framework, as a top beam, consisting of three 2 x 6-in. is placed across the bents near the top of the posts, and are braced to keep them from racking, to which the top of the first tier of boarding lumber is nailed, and the purline plate rests on the top of an A-shaped jack built in and bolted to the top beam. A long post, made up of plank, is placed in the middle of the gable-end from the sill to the peak of the end top rafter to stiffen the ends; 2 x 6 nailers are placed on this post, and the A-shaped jacks, to which the lumber on the gable ends is nailed.

The side nailers are of 2 x 6-in., and the top ones are placed so that the driveway roller-door tracks can be nailed on through the lumber, and into them; and in the driveway door space a 2 x 6 in. or 2 x 8 in. is spiked on the under side of the nailer, which also forms the door girt, and at right angles to it, which keeps it from springing in.

There is not the least difficulty in placing the doors anywhere on the sides between the posts, as, should a long side-brace come in the door space, the brace can be set on the top of the outside plank in the beam, instead of on the sill.

The posts from the beam to the sill are made solid by filling in the spaces with odd pieces of 2 x 8, or full-length pieces, as desired, which will utilize the short pieces that are cut off the planks while the frame is being made. The accompanying drawings will explain the plan quite fully.

I send you a photograph of barn I built for Harmon Marr, of Welland County, last summer, and it is 30 x 60 feet, without a basement, but has a concrete wall one foot high above ground, to which the 2 x 8 sills are bolted, the bolts having been placed in the wall while the concrete was soft.

This building was framed, ready to raise, by myself and three men in 4½ days, and was raised by the men seen in the picture ready for the rafters, in 2½ hours, and would have been done in less time and with fewer men had the weather been favorable, for the wind was blowing a gale, which made the work dangerous, but, fortunately, no one was hurt.

The two bents upon which the joist overhead the stables rest were made of timber, which were made of small, second-growth elms, which would warp very badly if sawn in plank, but with straight 2 x 8 plank, these bents can be made far more easily, and with far less cost, than the timber can be framed. The overhead joists were made also of small elms, flatted, instead of 2 x 10 plank, and they were supported on the outside end by 2 x 8 plank, being gained in the edges of the long 2 x 6 side-braces and fillers on the sides of the posts.

This barn was roofed with corrugated, galvanized steel sheets, and floored all through, driveway, stables, granary and halls, with concrete by myself and men, and it is a barn that the owner need not be ashamed of, or feel afraid of blowing down in a gale of wind. The outside work on a plank-frame barn is much the same as on the timber-frame.

The X marked on the photo indicates myself, the contractor, and men, and the man with the team and wagon is the owner of the building.

Welland Co., Ont. JOHN LAMPMAN.

### Hulled Oats for Seed.

When my oats were threshed last fall, I found two-thirds of them had no hulls. Would they be any good for seed? SUBSCRIBER.

Ans.—The oats here referred to are evidently very thin in the hull, which is easily removed in the process of threshing. In each of eighteen years an experiment has been conducted at Guelph in comparing oats which had been hulled in the threshing with large plump oats from which the hulls had not been removed. The average results for the 18 years show that the hulled seed gave 60.7 and the unhulled seed 63.2 bushels per acre per annum. In ten out of the eighteen years, the seed which had not been hulled gave a larger yield of grain per acre, and in the other eight years the hulled seed showed a slight increase over the other selection. In another section of the same experiment, hulled oats surpassed light oats on which the hulls had not been removed by an average of 9 bushels per acre per annum. The large, plump, rice oats, with the thin hulls, are more apt to become hulled than those which have small kernels or are immature. As the result of these extensive experiments, I would not hesitate in using

for seed purposes, oats from which the hulls have been removed, providing the seed was grown the year previous to the time that the oats were to be used for seed. C. A. ZAVITZ.

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### The Farmer's Woodpile.

Some people used to argue that green wood was better than dry. "It's all there," they would say. They believed, or tried to believe, that in some unexplainable way some of the solid substance of the timber evaporated in the process of drying, and the heat-producing power of firewood was by so much lowered. It was indeed surprising what a hot fire green wood did make. Given maple, not too sappy, split fine, and with the fire-box of the stove constantly full, so that the sticks on top were partially dried by the heat of those burning below, and sure enough a great heat was thrown off. Other delights were added gratis. The ends of the sticks fizzed and sizzled with exuding sap, sometimes actually whistled and sang, and in this way the merriment of many a cold winter evening the boys and girls of that hearty old time enjoyed was materially added to.

Some color for the idea that something of the wood was lost in the drying process was given by the fact that, after being kept for a year, much of the firewood then—and now, as well—was partially rotted, instead of being seasoned. Let a beech tree be cut in spring, when the sap is in full flow, split into big sticks, any log that can be lifted being left unsplit, and let this wood be piled in low piles where soon the shade will be dense, and by the next winter the sap-wood will be "dozy"—that is, half decayed. Its heat-producing quality is greatly lessened. But scarcely anyone ever really did believe that green wood was better than dry. The sentiment expressed was but an excuse for their own laziness or lack of forethought in not having a supply of well-seasoned, thoroughly dry wood provided, wood that goes off with a roar in the morning, and the supply of which in the stove the prudent housewife has to restrict for fear of burning things in the oven.

Those old days had their own discomforts, as well as joys. At the back door of many a house the total firewood supply available could be seen consisting of one or more green logs, and, if towards evening, a small, conical heap of split wood. The boy of the family—long-suffering chap—as soon as he got home from school, had to get the axe and make ready a supply to last till the same hour next day. By chopping a notch and splitting off the slab, alternately, he could worry a stove-wood length from the biggest log. The chip-yard, in consequence, was at most homes an established institution. This same chip-yard was not looked upon as simply a nuisance, the prudent farm housekeeper counting it one of her most dependable resources. When company for tea came unexpectedly and late, she would hastily run out with a basket, and, with the chips picked up, the kettle would be boiling in no time. The substitution of the saw in place of the axe, for wood-cutting has largely banished the chip-yard, to the

regret, rather, of some good women, but the practice of having a neat pile of dry, split wood, instead of a green log or two, for fuel supply, which has, we fain would believe, also become general, is an unmixed advantage. If but dry, any kind of wood, no matter how rubbishy, can be burnt with pleasure. Even basswood, when thoroughly dry, will give out a fair heat; how it acts when green or only slightly water-soaked, there is no need to tell anyone who has ever tried it. And the improvement in the harder woods, by being well dried, though not so noticeable because they can be made to burn, though in damp condition, is scarcely less than in the poorer sorts. The question as to how best to secure an ample yearly supply of such well-seasoned fuel is certainly well worth considering.

Many farmers have got into the way of hauling up a pile of logs and limbs during the winter and getting all cut up in a day with a buzz saw. It is an excellent practice. The cut wood, however, should not be piled unsplit in a solid stack, as is so frequently done, but should at once be split fine and placed in a long pile not more than, say, four blocks in width. If covered so as to keep off rain, so much the better.

The more common and, on the whole, the more suitable method, especially with large timber, is to cut into stove-wood lengths in the woods with the cross-cut saw, and split and pile at once. Some split fine, some into large blocks, others into thin slabs. The latter method is preferable. The fine-split wood, though it seasons well, is tedious to handle in hauling, and the slabs are practically as easily handled as the blocks, dry better, and can be more quickly and conveniently split fine when needed.

How best to pile depends a good deal on the time of the year in which the wood is cut. The autumn, after the leaves have fallen, is without question the best time to cut timber. Even the small limbs of a tree cut at that season will harden like bone. But if cutting is done in early winter, which is undoubtedly the best available time, it is all right to pile in the woods, building single piles rather high and well propped to hinder falling over, and as much as possible kept up from the damp ground. But if wood-cutting is delayed till early spring time, which to many seems most suitable, because then the days are longer and the saw cuts faster when the sap is flowing, there is danger of the wood souring and slight decay starting before the drying-out process is complete. This is almost certain to be the case if the woods are thick and shady, as they ought to be. It pays under such conditions to haul the wood as split, and pile in the open in double piles about six feet high. If time can be found to store such wood in the woodshed in early fall, it will be in as nearly perfect condition as one could ask for. Cured or seasoned in this manner, the product is much superior to ordinary good wood, even the white wood of beech being scarcely less valuable than maple. There is nothing like a woodshed for storing firewood after it has been seasoned outside for three months or more, but it is just as well that the cracks of the building be not battened. Getting an armful of wood where



Plank frame, erected for Harmon Marr, Welland Co., Ont.