

and others, but it seems so costly to make hay the way they do that we continue to risk it our old way. We are ready to change, however, the day it is conclusively proven that we are losing money to act as we do.

We use a 7-foot McCormick mower, and it does very good work. We have a narrower machine for rougher and more uneven ground. The side-delivery rake and loader are the standard sizes of the Maxwell make, and our wagons are Bains. We have a low wagon, which we also use sometimes during haying, but we find it too short to put on a good load.

If we only had the prime quality of hay, especially clover and alfalfa, in view, we would probably not use the tedder, side-delivery rake and loader, as there seems no doubt that with ripe clover or alfalfa lots of leaves are broken off and left on the field. When we know that clover and alfalfa leaves, especially the last, are worth about as much as bran, it looks like throwing away money to lose them. But we never felt like paying a man fifty cents to help us save a quarter which we were to lose.

The hay fork, with track, is a great labor-saver. In very wide barns I have seen a tilting elevated table to bring the hay down to one side. This table can be reversed in a few minutes to throw the hay on the other side of the mow. Last year we put up a solid framework at the end of one of our stables, which is over 100 feet long, and the loft of which is low. This framework stands over the end of the barn, and the rope goes right through the loft to a pulley at the other end, and comes down again under the frame. We can thus pack hay in this low loft as tight as if it fell down 25 feet from the track, as we have the full pull of the team packing it away at the other end. There is a hook firmly caught in the rope, and an eye on head of bolt, which passes through each whiffletree. A pin holds this whiffletree down on the pole, so that it takes less time to take away the horses from the load and hitch them on the fork than it takes to write this.

There is, as you see, nothing extraordinary in our methods, which seem the best for us to use, but which would need changing with different localities, or even different farms.

Quebec Co., Que.

GUS. LANGEIER.

HAYMAKING IN NEW BRUNSWICK.

Editor "The Farmer's Advocate":

We have in this locality a broad expanse of flat land. The Kennebecasis River running through and overflowing its banks, makes it natural for the growth of grass and timothy, especially more than any other kind of hay. This has been going on for the last century; in fact, since the country has been settled. The date of cutting this hay varies, as some springs are late, and the drainage is not good on account of the land being so level. The cutting season lasts from about the 15th of July until the 1st of August, and some years a few farmers are not through until September. Of course, that depends on the kind of season. This hay is cut after the blossom falls and the timothy seed is fast and remains so. This applies to the interval only. Besides the interval, we seed a portion of the upland with timothy and clover. The latter has been a very shy grower, and many people have abandoned it. We still continue to sow, with fair results.

The system we adopt is to begin cutting as soon as the dew has dried, and then follow up with fork in an hour or two (we have no tedder). In the afternoon we put up in cocks all that we have cut that day, leave it in those cocks three or four days, then open, but do not shake; open only what can be hauled in in two hours (too much sun injures and causes the leaves to come off). We find it pretty heavy, but it comes out fine and sweet, and is relished by the cows in winter. Often, when we are feeding, the blossoms are seen as when put in. We begin cutting the clover when it has about all bloomed, when only a few black heads are to be seen; this varies from the 1st to about the 12th of July.

We use a five-foot mower. Our rake has only a nine-foot head. It is very necessary for comfort, in haymaking, to have a rake twice the width of cutter, so that there will be nothing left, or no splitting of a swath. Our wagon rack is fifteen feet long, made in the shape of a boat, with hounds, and holds a lot of hay when loaded by a good builder. We use no loading machine, but pitch on with a fork. We have a track in the peak of the barn, with a car, which is attached by a rope to a double-harpoon fork which goes into the load, and the hay is raised with the team and carried by this fork to where it belongs, having a man there to throw it against the sides of bay and keep it level. The track and pitcher in the barn lessens the work very much; in fact, if one is in a pinch, any small girl or boy can drive the horses to unload, while only one man need come to the barn for a few loads, and the others can be in the field making it easy and quick to load.

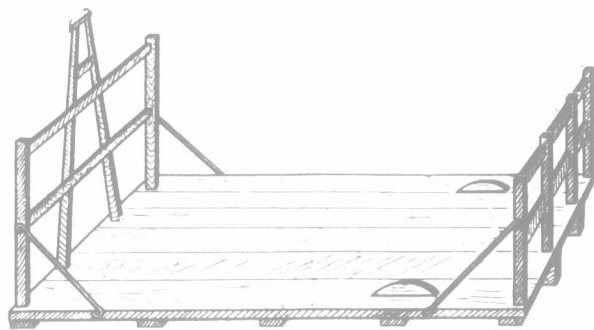
We have had no experience with tedder, loader or side-delivery rake. Have been endeavoring to raise crops sufficiently large to warrant their use. I believe, if we could get larger yields per acre, those machines would be economical to use.

King's Co., N. B.

BYRON McLEOD.

HANDY HAY RACK.

The accompanying cut of a hay rack, prepared from a sketch supplied by Mr. A. C. Hallman, of Waterloo Co., Ont., is explained as follows: The dimensions of the rack shown are 16 feet long by 7 feet wide, but may be made any length to suit;



the bed pieces are 2 x 10-inch pieces set on edge; the circle spaces to cover hind wheels are made of old wheel tires. The front of rack is 4 feet and the rear 3 feet high, of maple, 1 1/2 x 2 1/2-inch, planed; the iron braces 3 feet long; the floor 1-inch pine, laid tight; the cross-pieces under floor 7 feet long; 5 pieces 2 x 4 in., or 4 pieces 5 in. wide. Pieces 2 x 3 in. bolted on top of side pieces prevent load slipping off. If the rack-lifter is used, hooks are bolted on, as shown in sketch.

BATH-ROOM FITTINGS.

Kindly give plan and specifications for fitting up bath-room, with bath, basin and closet. The room is on second floor of house. Cess-pool or septic-tank systems. There is a fall of five feet in one hundred from house.

Bruce Co., Ont.

MOSES THOMPSON.

The accompanying cut shows the bath-room, kitchen and cess pool. The closet is made separate from the bath-room, this being the practice almost entirely to-day. The specifications are given below. The plumbing will cost in the neighborhood of \$200, the cess pool and the drain in the neighborhood of \$50.

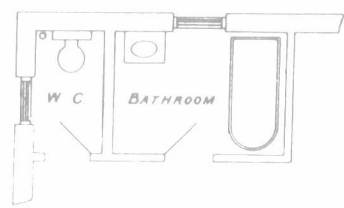
SPECIFICATIONS, PLUMBING.

Soil Pipe.—Run 4-inch med. soil pipe from a point three feet outside stone wall up through the roof; leave opening for closet, bath, basin and sink. Run all joints with oakum and molten lead, well tamped in, to have all the necessary bends, Y. S., good and proper fall. Make watertight joint at roof with sheet lead.

Closet.—Furnish and install one Acme Low-down Closet, oak tank and seat, N. P. push button, N. P. flush, and supply pipe, all complete. Plate E. 162, Jas. Robertson Catalogue, Toronto.

Bath.—Furnish and install one 5-foot, 2 1/2-inch Roll Rim "A" quality enameled bath; N. P. taps, N. P. supply pipes, N. P. waste overflow, all complete. Plate E. 22, Jas. Robertson catalogue.

Basin.—Furnish and install one 18 in. by 24 in. "A" quality enameled basin; N. P. taps, N.



Plan Bath-room and Kitchen Sink.

P. supply pipes, N. P. trap and waste, concealed brackets, all complete. Plate E. 124, Jas. Robertson catalogue.

Sink.—Furnish and install one 18-in. by 30-in. one-piece Roll Rim "A" quality enameled sink; N. P. taps, with lead trap and waste, all complete. Plate E. 129, Robertson catalogue.

Pump.—Furnish and install in kitchen one McDougal Force Pump, No. 45, connected to cistern and tank in attic.

Tank.—Line tank in attic with 5-pound sheet

lead, tank to be furnished by the proprietor, 4 ft. by 2 ft. by 2 ft.

Boiler.—Furnish and install in kitchen one 30-gallon boiler, and stand, connected to range. Proprietor to furnish water from range.

Cold-water Pipe.—Run 1/2-inch galvanized water pipe from tank to closet, bath, basin and sink.

Hot-water Pipe.—Run 1/2-inch galvanized water pipe from boiler to bath, basin and sink.

Tell-tale Pipe.—Run 1/2-inch black tell-tale pipe from tank to sink.

Vent Pipes.—Vent traps at bath and basin into soil pipe above the highest fixture.

Note.—All pipes in bath-room to closet, bath and basin to be nickel-plated.

Note.—All the work to be installed in the latest sanitary method, and to be left complete and in good working order.

HAYING IN NEW BRUNSWICK.

The first thing in haymaking is to make it grow out of the earth. Politicians from Ontario and the West have called the Maritime Provinces "The shreds and patches of Canada." I live in that portion of the patch called Sackville, which is surrounded by the Tantramar marsh. This land is perhaps not as fertile as the "Garden of Eden," but it will grow hay for 200 years without a fertilizer. Someone who reads this will say, "That fellow has positively eaten of the forbidden fruit, because we never heard of such a place as the Tantramar marsh, neither is there a portion of the earth (except in Ontario) where grass will grow 25 years without a top-dressing." Quite a number of our Ontario friends have come this way on their errand of mercy, and have been amazed that the Maritime Provinces have a Fat-stock Show building 200 feet long. Now, let me add that the Counties of Westmoreland and Cumberland grow more hay than any four other counties in the Dominion of Canada. It is grown on these marshes. That sounds like a place where wild birds rear their young. It is as level as the ocean in a calm, because it was made from the sediment left by the flowing in of the tide from the Bay of Fundy. After enough mud is deposited, dykes are erected to keep off the salt water. There timothy and couch grow, three tons to the acre, as beautiful hay as ever man beheld. Now, any who are dubious about these statements, come down in July and see a land flowing in milk and honey.

How is haying done, in this neighborhood? Well, we begin to cut July 15th, and never stop till October 1st. My, what a stretch! You will have quite a visit if you wait till all is gathered. (Perhaps I had better keep to the point about haymaking, or the editor will get mad and won't print my piece.)

We cut timothy from July 15th to August 25th; seasons vary. When land is dry and hard and weather fine and hot, hay is easily cured, as everybody knows; but when rain descends, another story could be told. Dense fogs, sometimes catch us, also. The timothy hay is generally sold. Great pains is taken to cure it well. The system is very different from that of some other parts of the world. Barns are dotted all over this marsh, and the barn floors are filled, as well as the bays. It is not often that horse forks are used for unloading.

We have no large animals settled around these marshes, like some of the twenty-ton, tusked monsters of the "Ice Period," but no doubt their bones are in the bottom of the Bay of Fundy; therefore, the reason of the richness of the sediment in the water.

I dare not say too much as to the fertility of the soil, as Ontario and the West tell such big ones about the great extension of limits that someone may think the picture overdrawn.

When grass is early and green, with a heavy crop, tedders are sometimes used. Hay cut in the morning is usually put in coil at night and allowed to cure two or three days, and put in the barn when the sun is hot and dew or moisture well off. If done that way, clover will keep when put in quite green. If put in moist, it will surely come out musty. Late in the season, when grass is ripe, it is mown one day, raked up at night, and put in the barn the next, after opening it up to dry out all dampness caused by the sweating. From August 25th to September 10th, what we call "tide hay" is cured. It is grown on lands that are being tided. This takes a week to cure in swath, after which it is put in large stacks, and hauled in winter for the Shorthorn cattle.

From September 10th to October 1st, what is called "mixed," or "broadleaf," is housed and stacked. This is grown on soil that has a thinner layer of mud, and will, therefore, not grow marketable hay. This and the tide hay is all fed to the cattle, and they will eat it up quickly, and do better than on the timothy and couch.

We are a bit busy just now, but when the snows of winter come again, and we get gathered around the home nest, with more leisure on our hands, a good story could be told about this isolated section by the sea. We read "The Farmer's Advocate," and have a few good Tory sheets