THIS AGRICULTURAL INDUSTRY

Manufacturing Wooden Pump Tedious Project

By NEIL A. MATHESON

I want to thank Allison MacLeod, Charlottetown and James H. MacDonald of Sackville for tips that brought me this story on "Wooden pumps."

Mr. MacDonald sent me to Hector Compton at Bangor who told me his father, John Henry Compton, and his grandfather, John Compton, had made the wooden pumps. Hector helped them make one pump, he told me, then the iron pumps came in and that ended the wooden ones.

The heads of the pumps were always made of pine, Mr. Compton told me. They were about 12 inches square at the top, at the bottom the wood was rounded. An iron band was fastened firmly to take "the tail piece" that was always made of beech, so it wouldn't rot. And it would not "taste" the water, I was told.

The head and tail piece were joined together in sort of a groove-and-tongue arrangement, so the join would be watertight.

The tail piece would be roughly nine inches in diameter. It was the piece that went down in the water, and would have the cylinder in it. The Beech wood was smooth for the cylinder part. Mr. Compton explained, for the cylinder and the valves to work in. The cylinder was also of wood. There was no iron pipe, it was all wood.

The lower valve held the water, the upper one went, with the spear rod, up and down, and lifted the water — that's the principle of the old pumps— modern ones too for that matter, until the modern jets came into action.

The hole through the centre of the tail-piece— the pipe as we would think of it today— was about four and one-half inches in diameter. The hole was bored through by hand. A two-inch augur was put through first, and then the hole was reamed to the larger size by a reaming tool.

The tail-piece was all in one length. "Ours out here was 36 feet long," Mr. Compton told me.

LONG STRAIGHT STICK

"We would hunt the woods for a long straight stick, cut it down and prepare it for the job."

The shank of the augur we bored with was 18 feet long of one and one-half inch iron. They would bore from each end and they became so skillful that they almost hit the spot from each end, hit the hole they had bored from the first end. They used to boast to each other how close they could come, Mr. Compton told me.

"We had a series of benches to set underneath that shaft to keep it from springing; with those benches and a wedge, we could regulate that augur shaft up or down to make it follow the centre of the stick," he recalled.

They became so skillful that if they had a stick of wood which wasn't quite straight— it might have a slight bend in the centre for example—the men could make the augur follow the centre of the stick, even through the part that wasn't exactly straight.

"Our deep well was 55 feet deep, but the head piece there went down 12 to 14 feet, and the tail piece wen the rest of the way."

There would be four or five feet sticking above the ground— of the headpiece— the rest would be down in the ground.

They were always digging wells, walled with stone. The first digging was through clay that would be walled with stone, the rest of the digging was through rock.

They would dig quite a large hole at first—perhaps six feet in diameter—then they would wall it from the bottom up with fieldstones, with a curve on the inside, and V-shaped to fit into the circular shape of the well.

QUESTION IS ANSWERED

I've been asked by several people to find out how the top part of the dug-wells were walled. If the wells had been put down 20 feet, for example, before solid rock was reached, how could the workmen dig the last five or 10 feet of that 20- foot depth, without having the sides cave in on top of them and their work?

But the answer is simple, Mr. Compton told me. After one digs through the first couple of feet, he strikes a sort of hard-pan so the walls wouldn't cave in.

The cylinder was fashioned by hand, it was also of beech. But that part is rather complicated to explain. I suggest we skip that part. The rod used to pull the cylinder up and down was usually round iron about three-eighths of an inch, or one-half inch. "But we used three-eight inch galvanized pipe for the last pump we made," Mr. Compton told me.

The augur would be about two inches in diameter, and it would be a job for two men to turn it, as they drilled the hole through the centre of the long piece of wood. Hector Compton's uncle, Will Compton, built a windmill to turn the Augur, and the neighbours called him "Windmill Bill", his nephew told me.

The "handle" used to turn the big augur was a stick that would extend about two feet on either side of the central augur shaft. It has to be that long, apparently, so that men turning the augur as it slowly ate its way through the long piece of wood, would have enough leverage on it to turn it.

I would think it would be difficult to keep the long augur straight, so it wouldn't eat into the sides, for example, or bore a crooked, corkscrew type of hole. Mr. Compton agreed that it was quite a trick. But the men became so skillful at it, that they could almost strike the right spot exactly, when they drilled through one end of the stick to meet the hole they had drilled previously from the opposite end.

I thought their method of "chalk-lining" marks on wood was interesting. Today carpenters, or other wood workers, have blue chalk with which they chalk a line, cut to the desired length, then they pull the line tight, pull it up in the centre so it will snap against the article they want to mark. If I have described that imperfectly, I'm not worrying, because most of you know how a chalk line is used now better than I do.

MARKING IN OTHER YEARS

But there was no such colored chalk in those early days, apparently. So here's what they did and the words are those of Mr. Compton:

"They'd cut a piece of alder, about two inches in diameter, and a few feet long. They'd burn the alder so it would be black, then they'd snap the burned alder against the wood they wanted to mark. When they used up 'the burn' off of the stick, they'd burn it some more, and get some further coloring, or marking usage out of it.

The wells at the time of those wooden pumps would perhaps run to a maximum of 45 feet not more, although the last well the Compton's put a wooden pump in was 10 feet deeper.

Many of the wells of that era **would only be 10 or 15 feet deep.** I remember a well on the farm of Chalmers MacLeod, Springton, for example, that was so shallow they had a bucket with a chain on it and would drop it into the water which was only a few feet below the surface of the ground. Mr. MacLeod lives now at 198 Grafton Street, not far from this office. The farm is owned by Knud Jorgensen, Fredericton, who is one of the best known men in the province. It's years since I saw the well but Knud told me not so long ago that it's still operating and the water is still close to the top of the ground.

The old wooden pump threw a great stream. That four and one-half inch bore a large cylinder brought up a lot of water. You could fill a bucket with three or four strokes of the handle. Mr. Compton didn't use the word "handle". Instead he called it "brake", as the pump handle was known in those days. It may have been spelled a bit differently. I forgot to ask him, but that's the phonetic spelling of the word, at any rate.

He couldn't tell me what the old wooden pumps cost. But wages were low in those days, the cost probably would be low too, though I have no idea.

"My father and grandfather used to travel around the country making the wooden pumps— they would take their equipment with them— and they'd set up a tripod of three poles, at least 25 feet long. They would be chained together at the top to make a tripod, and these were used to lift the 'tail-piece' of the pump— the part we would call the pipe —that went in the ground. This tripod and block-and-tackle arrangement would be necessary to lift the heavy stick, so it could be dropped into the well," Mr. Compton told me.

APPEAL DISMISSED

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