

ENLARGING OPERATIONS

The first year I was at the Gilmore mills I suggested to Mr. Gilmore several changes in the mills, to make them more economical and, as I thought, do the work better. We were sawing largely for foreign market, and everything that could be so manufactured was made into deal, (three-inch plank), which I used to say must be three inches plump, until some one asked me how much "plump" was, and I answered that it meant a trifle over the full thickness of three inches. The mills were cutting about 500,000 feet a day. Logs were cut in the woods thirteen feet long, and the deals were required to be seven, nine, and eleven inches, and upwards, in width, and were classed as Nos. 1, 2 and 3. When I went there No. 1 were practically clear, free from sap or any defect; No. 2 would allow some defect, and a little sap, but were required to be good pieces of lumber, premitting some small, sound knots. No. 3 were much like our No. 2 common, as we now grade lumber. The prices at which these grades were sold in the foreign market were as follows: No. 2, the second year I was with the Gilmores a little less than two-thirds the price of No. 1, and No. 3 at about one-third less than No. 2. In making all the deal of three-inch plank we were obliged to make much inch, inch and a quarter, and inch and a half lumber from the sides of the logs, which were shipped to Troy and Albany, very largely. When the prices in foreign market for Nos. 2 and 3 dropped, as they did, I suggested to Mr. Gilmore that we would realize more from those grades by re-sawing them into inch and a half, and I told him how I thought it could be done to good advantage; that was, to build a little gang that would carry three or four saws, with upright rollers for feed-rollers, and run thin saws, about three feet long, with teeth not over an inch apart, and about eighteen or nineteen gauge in thickness. In that way deal three inches plump would make two planks, one

inch, three-eighths, and one-sixteenth—the thickness required by the Troy and Albany markets from their own mills in the west and northern New York. I ran that little gang three hundred revolutions a minute, and by running three and four pieces through at a time, it would cut all the Nos. 2 and 3 deal the mills were making, and made a large amount of lumber for the American market. It was run to the piling ground, seasoned for shipment by canal, and taken down the St. Lawrence river, through the canal from the St. Lawrence to Lake Champlain, through the lake to Whitehall, whence the Northern canal run to Troy. It increased the amount of lumber sent to dealers so much that the market was depressed, and it became necessary to start a yard at Troy to take care of it. That made another job for me, for Mr. Gilmore wanted me to go to Troy with him to arrange for the ground and lay out a yard where the lumber could be taken from the canal boats and piled, and more completely seasoned. We located that yard between the Mohawk and the Northern rivers. Mr. Gilmore bought a large tract of land, and with the help of a surveyor I staked out the yard, and made arrangements with a Vermont company that was getting out slate for its fine, broken slate, to cover the yard. I conceived a plan for handling the lumber from the canal boats into the yard, and from the yard again to the boats that took it down the Hudson to New York, which enabled the company to handle the lumber in a cheap and expeditious way. I put railroad tracks through the yard, running from the canal on one side to the river on the other, and made the tracks parallel and at right angles. I then went to a car shop in Troy and had cars made after my own plan. I put down standard width tracks, and had wheels made two feet in diameter and a frame $2\frac{1}{2} \times 16$ inches in width and 8 feet long, with $2\frac{1}{2}$ inch shaft, four wheels to the car, with cast iron boxes to bolt to the lower side of that frame, with four girts the same thickness of the sides crossways of this frame, with a center girt four inches thick and fourteen inches wide. Then I had a cast

iron circle four feet in diameter with a center hub that rested on this four-inch girt, the wheels of the car being two feet or twenty-six inches in diameter, the top of which were a little below the top of the frame. I then had a frame made the same size and like the lower frame I have described, only six inches in depth. Then I put a similar casting on the lower side of that frame, and in the casting of the lower frame I had about eight four inch cast iron wheels, that were set into the lower circle, and places were made in the casting to receive these wheels, and the hub of the circle on the narrow frame of this car made a place for a king bolt. From that the top frame of the car would revolve around like a turn-table; in other words, it was a car with a turn-table on it. In this top frame I put rollers as long as the frame was wide, six inches in diameter; the end rollers having square ends on the shafts that went through them, reaching outside of the frame, so that one could put a crank to it and shift the load from one car to another. In that way, the tracks being at right angles, and running through the alleys to the piling ground, one could move a car to any alley, and a load of 1000, 1500 or 2000 feet, by setting the top frame at right angles with the car, and move the load from a loaded car to an empty car in a greater or less time. That method did away with all the switches in the yard, and it was a very economical way of handling the lumber; and many mills all through the country, in New York and Canada, soon built such cars to handle the lumber in their yards.

The first year the yard at Troy was in full operation we shipped to it thirty or thirty-five millions of lumber, and I believe the project resulted in a very satisfactory way of disposing of the lumber shipped to the American market. Allen Gilmore, of whom I have frequently spoken, had charge of the sawed lumber and square timber in Upper and Lower Canada, with headquarters at Ottawa, or Bytown. The company had a branch house in Montreal, of which James Gilmore was the manager; John and David Gilmore were the managers at the

Quebec office; and a Mr. Rankin, a partner, was manager in New Brunswick. The company's square timber business was much larger than all of their sawed-lumber business. Much of the square timber (hewed timber) was re-sawed in London, Liverpool and Glasgow.

EARLY-DAY RAILROADING

I don't remember in what year it was, but I remember that Mr. Gilmore was there, after I had got the Troy yard arranged and a good deal of lumber piled, and he brought with him the company's local manager from the River Trent mills, to show him the arrangement we had at the Gatineau mills for handling the lumber we sent to Troy for American market. While there, (it was the year or perhaps the year after the Hudson river road was completed between New York and Albany), there was much talk about "the lightning train" it run. Mr Gilmore told me about walking a mile or more towards New York, to see that train pass. I well remember the way he told it. "Why," he said, "Mr. Ingram, it was one of the greatest sights I ever saw, when that ponderous engine, with some eight-foot drivers they were experimenting with, went by us at full speed!" And he swung his hand on the table, saying, "It seemed to demand an unconditional surrender of everything!"

LUMBER CAMPS

After the mills were shut down at the Gatineau and the millwrights at their work of repairing, I made a trip up river, to the camps. The farthest camps up the main Gatineau were about 160 miles. We used a long sled—no bob sleds then. On my first trip Mr. Carmichael, the old Scotchman, the agent, went with me, as the road to me was new. There had been very little logging done on the river until we got about fifty miles out, at the mouth of the Casuwa Baswa. We had a pair of good driving horses and two large rolls of mackinaw blankets