

DOWN ON THE SQUARE TIMBER.

By SID HOWARD, in Toronto Saturday Night

Dan Milo, the raftsman, leans his chest against his cant-hook, his eyes squinting in the sun, while Louis, he of the green sweater sits on a block and saws the end of a floating log at the edge of the crib. Dan comes from down below. He wears a tall grey plug hat, the top of which is held on with long stitches of grey yarn; a flannel shirt, and a pair of spiked shoe-packs. He is a compact, nimble little man, with the ease of carriage that comes from running loose logs and balancing oneself in ticklish places. And his eye has the richest twinkle in the world.

"Me?" says Dan. "I wear dis hat for coolness to the head. I do a lot of work in my mind, me, yeas."

"Yo hole dat log," says Louis.

"Certainment, miseu," returns Dan, with concerned politeness. "I love you dat well I will do so."

He flings his cant-hook dexterously over the log, jams the point, and rolls it over for Louis to get at it with the saw.

"This young Louis is a wicket man," says he. "Son, you pay no notice to him. He'll swear and smoke and drink. Yassir. You fell's ain't got some shin, eh? Hollan' shin. No?"

He looks reflectively at his shoe-packs.

"I'll drink Scotch whiskie dat you have some. Whiskey blanc? Yeas. You hev some of dat, eh? No? Dat's too bad."

His eyes grow round presently, round as glass marbles, and the rest of his features vie with each other to express surprise.

"Was I ever on de raf' in de storm? Me? Yeas! H'm. I guess I was so. H'm. Our tow we was sixty miles from de shore. Whitbee—you know Whitbee? Well, sixty miles from dere, straight out from de land."

This would have landed Dan rather high and dry in the State of New York.

"Sixty miles from de land. An' de waves—up an' down—ho!—dere was waves as high, as high—an' de raf'—she groan an' groan, an' de logs bob up an' down, and break away; yassir. De dam raf' bust up!"

The facial contortion during this narrative would certainly lead one to suppose something dreadful indeed had followed out so far in the lake that time.

"What did you do?" we ask, breathlessly.

"Ho, we all get on de boat," says he, calmly. He looks at us cornerwise.

"Me? I come from Coteau Jonkshen. You been dere! Jee Cree, I live t'ree acre from Coteau. I hev a sixteen-dollar plug hat dere. You should see me walk down street wit' my gal."

"Un hole woman," says Louis.

"What is it?" shrieked Dan.

"You hole dat log," says Louis, chuckling at us.

Three weeks more and Toronto's annual square timber raft, destined eventually for Liverpool, and the English market, will be ready for the lake. Thousands of feet of the finest Canadian elm, seven ribs, or "drams," of rough-hewn logs three tiers deep, will lie at

the Queen's Wharf waiting for the tug-boat. Chained in a string, they will float out some fine morning on the long journey down the lake, through the Thousand Islands and the rapids of the St. Lawrence to the coves of Quebec and the English timber ship. Brought down from the north and west of Old Ontario on the C.P.R. flat cars, shunted out on the long piers, rolled one by one into the bay with a pound and a far-flung splash, the great squared timbers rest for a while in the quiet, limpid waters of the Brock street slip. The old grain elevator casts its shadow over them in the morning, as it has done over many and many a raft of square timber in its time. Bare-footed, skinny-legged urchins run the low-floating logs after school in the afternoon, as many of us, long since staid and stiff, remember doing twenty years ago, when rafting went on in Toronto Bay all summer long.

Dan and Louis and the gang of French-Canadians jump about on the floating timber, pushing and prying in the field of logs, picking out the pieces they want and perilously navigating them under the "binders," which form the raft's framework. With crushed birch sapling withes, twisted by ironwood levers into knots tougher than ropes or chains, they lash each log, once in place, to the "binders." Two more tiers will be hauled up on top of the first one by the engine on the scow, and then, ho! for the open lake and the rapids and the long drift down the St. Lawrence.

"Yaw, hip; yaw, hip. Whoa. Un peu encore. Whoa!"

Dan, jumping six feet from log to log, sinks on a water-soaked timber above his shoe-packs.

"De water's good dis year," says he.

Over behind the elevator the Calvin Company boats from Garden Island are swallowing logs like minnows through the great flap-doors in the bows. The huge dripping timbers are sucked up out of the water and whisked end-on out of the sunshine into interior darkness. The engine away astern clanks and rattles as the hauling cable winds up on the drum. There is a sharp whistle and the clanking ceases. The heavy solid thud of timber comes from the cavern jaws in the bow. The Garden Island loggers shout in broken English away somewhere in the darkness of the hold. There is another whistle, the clanking recommences, and presently the end of the cable is hauled out into the sunshine. The man on the floating boom siezing the hooks, clasps them about the end of a fresh log much as a chunk of ice is gripped with the tongs. There is a shrill whistle and the clank once more of the engine. The cable stretches, and the log, climbing up the skidway, slides ponderously into the darkness. Again comes the shout.

"Whoa, hup?"

The spring softness hangs over the bay, over the low-lying island, over the roofs, tree-tops and steeples of the City of Churches. The three-masted, log-laden "Ceylon," of Kingston, bold and broad in the strong warm light, lies out in the deep water waiting for the breeze that will take her down the lake to the Calvin raft-builders at Garden Island. The Argonaut

eight shoots out the Western Gap to where the open lake glints pale and gay in the afternoon calm. Over everything is the rich warm light of the Canadian spring.

The man on the boom who feeds the swallowing monster hums a song of the St. Lawrence as he stands waiting with his pike-pole.

"What tam is it?" says he, presently.

"Half-past four."

"Jee Cree, is dat all de tam it is? Un peu and a half yet. De clock goes slow, don't it?"

At the raft Dan bade us an affectionate good-bye.

"An' I want you fellows to understand," said Dan, "dat de nex' tam you must buy t'ree ceegars, one for me dat's de boss, one for him—dat's my clark, and one for his—dat's my paymaster. But dem fell's over dere is to hev none, min' you. Dey's a bad gang, wicked men, dem fell's. Dey won't do what de boss tell dem. I fire all of dem ver' soon, you'll see. T'ree ceegars, min' you. You'd come down here on McCartee's raf' free for not'ing. No, sair."

SYSTEM AND EFFICIENCY OF ELECTRIC TRANSMISSION IN FACTORIES AND MILLS.

By WILLIAM S. AUBRICH.

The recent progress in the use of electricity for the transmission of power over short distances has developed a new industry. It is fair to rival in magnitude and usefulness the field of long-distance transmission, much earlier developed, and now almost exclusively held by electricity. As applied to factories and mills electricity is simply a means to an end, which is primarily the transmission of power over quite short distances, from 300 to 500 feet, and within one building or a group of buildings. Upon entering this new field has had to contest every inch of its progress with long-established usage, in order to displace the unwieldy and unsightly power transmissions by shafting, belting, and rope drives. In almost all cases of new manufacturing plants, however, the features of electric transmission have received thorough consideration, resulting in many factory installations in which this system is exclusively used.

Some manufacturers have hoped that electricity would solve all of the problems, and, once, upon its introduction into their establishments; others have known it would be no use from the beginning. There are many factories and mills in which the introduction of electricity for power transmission will not pay, under existing conditions; there are no establishments in which it would pay, in spite of an investment in electric transmission which would prove to be a dividend-paying investment. In general rules can be laid down. Each case must be carefully examined, and a most thorough preliminary survey made of all the conditions and requirements.

SYSTEMS OF ELECTRIC DISTRIBUTION FOR FACTORIES.

In choosing a system of electric transmission for manufacturing work, it is not necessary

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