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Building the Grand Narrows Bridge ,t,-r; ".gl''vy' (I was reading in Harry Bruce's LIFELINE about this man Reid, who oversaw the building of the railroad across Newfoundland and was responsible for establishing the regular run of the Newfoundland ferries. Did he build the railroad across Cape Breton too?) Capt. John Parker; No, he just took the contract to build the Grand Narrows bridge. No one else wanted it. It was tough to build. It's so deep, across from Iona to Grand Narrows. And when I say deep, it's 90 feet deep • most of the way across. Not only is it deep but there's a very strong, erratic tide there. It's fairly regular • you can compute it within reason • but the trouble is you also have an ice situation, and you have the depth of water, and there was overburden on the bedrock. All in all, a tough place to build a bridge. (Had anyone tried before this man?) No. But they had tried to find someone to take on the job. It was a government thing and it had to be tendered for • and apparently no one else was in position to risk it. And a cantilever bridge system wasn't too well established at that time • or any system for span • and yet it had to be built in a way that would not restrict navigation. So that put a limit to the length of the span they could have. They decided to build it the way it is now • with piers and box girder trusses. I suppose it's cantilever between the piers. And one of the sections is moveable, to let a ship through. That still works. It's used all the time. Lobster boats don't go that way now but they have in the past, and they've taken pulp boats from down there. We (the pilots) had one fellow, he was slick at getting a ship through there • but he was born and brought up on the job. Jack Ferguson. He started out taking schooners through there without an engine, through this swing bridge. And that was really something. All I know about this really is what Mary's uncle, Yorke Barrington, told me. He was an engineer and he was endlessly curious about things of this sort. He told me it took them about three years to build that bridge. This Reid fellow made a bid. Took the job. Came around. Got a gang of men collected. And then started to get the timber--big timbers. At that time there was lots of wood. And they started off by building cofferdams. (A cofferdam is a temporary watertight enclosure built in water and pumped dry to expose the bottom and allow men to go down inside to do construction work, such as the building of piers.) They had to get down to the bottom of the lake • 90 feet down in that area. And the tide to contend with. So the procedure was to start building this cofferdam ashore and build it up to a certain height that they could still manage it, so that it wouldn't upset with some ballast in the bottom of it. Then they took it out into the water. And they kept on building and sinking it, until they had the required height of the dam and the required amount of ballast in the bottom, which was considerable. They sited it on the bottom. But of course it would only land on the overburden that's on the bottom. They had yet to go to bedrock for a structure of that size. And drive bolts into the bedrock to hold the thing. They say that anyone with any sense at all who went along there, and there was no water in the lake, would never go over that bridge. Because it's the most spindly thing in the world. She's a way up on these towers, those piers,



sticking up in the air • like pictures we've seen of the Rockies, the engines chuffing along, and tier after tier of pit props holding rails up. If the water wasn't there at Grand Narrows you'd be crossing 90 feet high on these spindly masonry items. Well, the cofferdam is put there so the men could get down. They put the cofferdam in place. It all had to be caulked tight. Pumped the water out of it after they got it secured. A portion of the cofferdam at the bottom extended outward; it was a landing platform and a ballast platform to hold it down • because otherwise it would just shoot up once they moved the water out of it. See, this is a tremendous prac-