THE PERILS OF DREDGING

or

THE TALE OF THE DRAGON

by Capt. John Leonard

This is a story about an accident which happened many years ago, when I was a lad growing up in Toronto. We had a summer cottage at Ward's Island, the far eastern section of the Toronto Islands. Every year, the Eastern Gap, which separates Ward's Island from the mainland, had to be dredged because a sandbar, caused by the easterly storms on Lake Ontario, would build up at the lake entrance. (Annual dredging is no longer necessary now that the Leslie Street Headland shelters the gap - Ed.)

The year was 1934 and the dredging contract for that season was let to the Kilmer, Gibson & Van Nostrand Company. This was an old Toronto construction company and, to work on the Eastern Gap project, they brought in their big dredge DRAGON ROUGE, the tugs ERL KING and SAM KING, and assorted scows. In those days, dredges had some fancy names and DRAGON ROUGE was not the only one. I remember the EXCELSIOR, MONARCH, MAJOR, ROCK KING, TORNADO and CYCLONE, to name only a few.

DRAGON ROUGE was a steam dipper dredge and she operated on the same principle as an Erie steamshovel, with a boom and a dipper arm which moved up and down on a pinion gear. As the dredge dug material off the lake bottom, it was deposited into dump scows moored alongside. These scows had hoppers in them, into which the spoil was dumped. The ERL KING would tow the scows out into the lake a few miles, and then big doors in the bottom of the scow would be opened and the spoil would drop to the bottom of the lake. The scows had airtight compartments in them so that they would stay afloat. On the way back in toward the dredge, the scow doors would be wound up, and in those days this job was done by hand, a back-breaking job. Two scows usually were used, so that one would be loading while the other was on the way to the dumping ground.

While they were at work, dredges such as DRAGON ROUGE were anchored to the bottom with "spuds". These were huge poles or square timbers, forty to fifty feet long, and set in inserts in the dredge's hull or sometimes held to the outside of the hull by means of large brackets. These spuds were raised or lowered by means of a rack and pinion gear, operated by a steam engine. Some spuds were fitted with wire rope cables which performed the same duties; both systems had advantages as well as disadvantages.

The spuds were positioned near one end of the dredge, the digging end, one on each side. On the stern of the dredge, there was a single spud, which was set off on an angle, and this served as a "pusher" to move the otherwise unpropelled dredge ahead. When the operator had finished his cut, he used the dredge's whistle to signal the spudman to raise one of the spuds. One whistle indicated the right spud, and two meant the left one. After the spudman raised the appropriate spud, he would run back and engage the pusher, which would move the dredge ahead in an arc, as one spud still was down. Then he would run back up and drop the spud down onto the lake bottom, cross over, raise the other spud, go back to the stern and give the pusher another shot. In this way, DRAGON ROUGE literally could be "walked" ahead, so that the operator could keep working ahead into the dredging area.

Dredging was a fine art. A contract would be let by the federal government, specifying just so many yards of material to be removed down to a prescribed depth. If the operator left a high spot on the channel floor, then the dredge had to go back and remove it. If the dig was a little too deep, then the size of the hole would be taken off the yardage and the contractor would not be paid for it. After a dredging project was finished, government inspectors would arrive in small boats and take soundings of the area to ensure that the dredging contract had been carried out satisfactorily by the contractor.

It also was the Dominion government's duty to notify users of the shipping channels as to locations in which dredging operations were taking place.