

and it left a trail of dismantled bridges in its wake.

Excavations accounted for a good portion of the Seaway's cost . . . and for their ten-mile section of channel, the American contractors assembled the greatest single collection of machinery in the world.

Upstream from the canal, a group of islands, which extended into the ship channel, were sliced off, and trimmed to size. In some cases, whole new islands were created, others disappeared entirely. Nowhere along the Seaway has the geography of the river been so drastically altered by the hand of the engineer.

On June 3, 1956, the lock formerly designated as the Robinson Bay Lock was dedicated in the name of President Dwight D. Eisenhower. At that time, the lock was little more than two rows of concrete cubes at the bed-rock bottom of a canyon 150 feet deep. As the individual cubes took shape, the areas between them were filled with concrete, and new cubes were built above them like building blocks, until the walls reached more than a hundred feet in the air. Each swing of the bucket brought four cubic yards of concrete to the forms. As the bucket swung clear, puddlers moved in with vibrators, compressed air devices which settled the concrete by driving out air bubbles. Working three shifts a day, throughout the warmer months crews managed to pour as much as three thousand cubic yards of concrete in one day.

Underneath the Eisenhower Lock, a highway tunnel leads to beautiful new parklands and observation points commanding views of both the power project and the Seaway.

Some three miles down-stream, where the Snell Lock terminates the canal, dredging operations were carried out. Approximately two thirds of the Seaway passes through open river, and a wide channel, 27 feet deep, had to be cleared.

At Grass River, opposite Cornwall, a hydraulic dredge sucked up the river bottom and powerful pumps forced the sludge through a long tail pipe, over water and land, to spoilyards up to a mile away. When these spoilyards were dry, they were planted and landscaped to blend with the surroundings.

Again on the Canadian side, south of the old fourteen-foot Soulange Canal, the new route follows the Beauharnois Power Canal, which, with two locks added, became a sixteen-mile channel into Lake St. Louis below. Ships leave the power canal and enter the upper lock near the Railroad Bridge, and drop 42 feet into an overland canal.

Three-quarters of a mile further down, they enter the lower lock, near the power dam, and drop the final 42 feet into a dredge channel in Lake St. Louis. Work on the upper lock was greatly complicated by an abnormal amount of seepage. To control it ten massive pumps flushed out 25,000 gallons of water per second, as workmen prepared to install the lock-gates.

Below the Railroad Bridge, ships pass down the overland canal on their way to the lower dock; 4,500 feet long, this is the Seaway's shortest canal. The shortest, but by far the most difficult. Every inch of the canal turned into a battle. The reason: Potsdam sandstone. Underneath the shallow subsoil which covers the area lie layers of this hard abrasive stone. Every cubic yard had to be blasted free with high explosives and thousands of blast holes drilled deep into the rock. At the lower end of the channel there was a further complication: a tunnel had to be dug beneath the lower lock for the four-lane traffic of a main provincial highway.

As each of the seven locks may eventually be twinned to double the Seaway's capacity, the tunnel was dug to double