

SOCIETY FOR INDUSTRIAL ARCHEOLOGY

NEWSLETTER

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STEAM PUMP DISINTERRED BY HYDRAULICKING

Its original purpose failed, but the adventurous scheme of one Klondiker—who hoped to sell water pumped from his location on Hunker Creek into the surrounding hills to miners sluicing their claims—is now paying off in other ways. From 1900 onwards, Yukon gold-mining operations increasingly were mechanized, and sluicing and panning by individuals declined. Hence Alex McDonald's steam pumping plant worked only briefly before abandonment in the face of commercial failure. Surviving, however, was the heart of the works: a huge Riedler pumping engine and its pair of boilers, built in 1903 by the Fraser & Chalmers works of Allis Chalmers in Chicago. The outfit was brought into the Yukon by sternwheeler and horse wagon. Over the years the equipment gradually subsided into the permafrost ground, and was covered by the tailings of on-going, more successful gold-dredging operations.

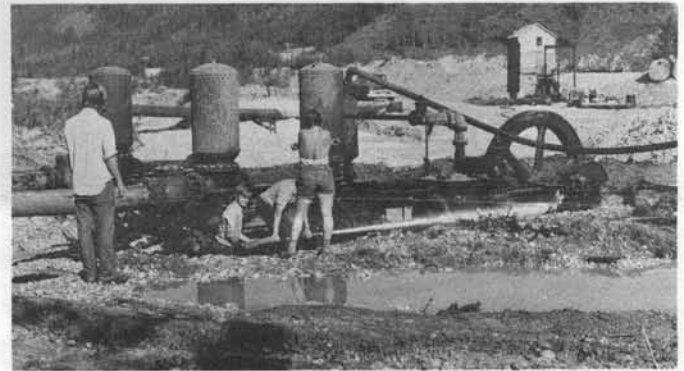
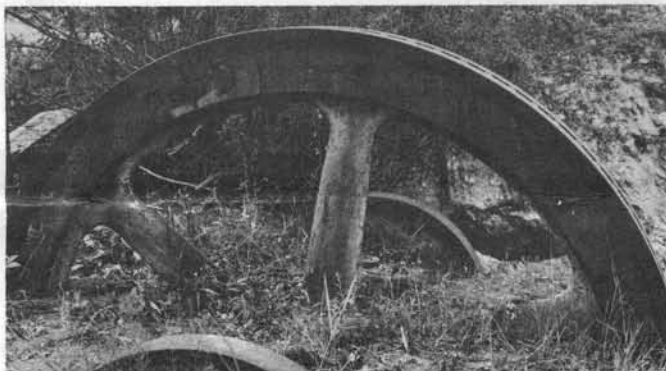
A few years ago new owners of the pump-works site offered the barely visible relics to Parks Canada. When, in 1975, Parks acquired the Bear Creek Mining Complex near Dawson, they decided to take up that offer. The machinery would be rescued and removed to the planned mining interpretation centre at Bear Creek.

A five-person crew began work that summer, shovelling and sluicing away up to eight feet of rocks, gravel, and frozen earth to expose the 13-ft.-high pump and 18-ft.-long, 12-ft.-diameter boilers. Enlisting expertise from Parks' marine engineering

division, and the muscle of two "cats", three dump trucks, and two front-end loaders, the crew dismantled and retrieved the pump and rolled out the boilers in a series of complex, dramatic maneuvers. [The full story is detailed in *Conservation Canada*, 1976, avail. from Supply & Services Canada, Publish. Center, 270 Albert St., Ottawa, Ont. K1A 0S9.] D.N.

This is one of only two Riedler pumps known to survive in N. America. The other is a smaller machine of 1901 in the collections of the Natl. Museum of History & Technology, Washington, driven by a Pelton wheel. The Riedler pump was invented in 1884 by Alois Riedler (1850-1936) of the Technischen Hochschule, Berlin. Its principal feature was extremely high-speed operation, made possible by having both suction and discharge valves (poppet) opened and closed positively by eccentrics on the crank shaft rather than by pressure differences in the pumped liquid as in conventional reciprocating pumps. Riedler pumps were thus much smaller for a given capacity, bringing them into worldwide use in mining, municipal water supply, sewerage, and a variety of other services, driven by every type of prime mover. Fraser & Chalmers and their successor Allis-Chalmers (formed in 1901) were Riedler's American licensees.

Additionally, two very large Riedler steam pumping engines survive (out of service) in municipal pumping stations in Boston and Chicago, the former safe, the latter doomed.



BEFORE & HALF-WAY DOWN. McDonald's great Riedler steam pumping engine undergoing exhumation by hydraulic sluicing. Left: all that showed of the flywheel and cranks after 70 years of slow interment. Right: about half of the

accumulated overburden removed. Behind the latter-day hydraulickers are the two pump cylinders surmounted by their air (cushion) chambers; to the right the steam cylinders. *Parks Canada photographs.*

THE ANNUAL CONFERENCE 1979

is to be, as y'all'll recall, in ...

COLUMBUS, GEORGIA

a textile city of surpassing interest to the industrial archeologist ... on 28-29 April (i.e., the *old* scheme of last weekend in April) ... with a good possibility of "process" tours on Friday the 27th as well. Mark the date *now*. And ...

THE 1978 FALL FIELD TRIP

as you will have observed from the announcement you should have received, is to be in **RHODE ISLAND**, cradle of the American Industrial Revolution ...

29th - 30th September.

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