PE 58-11

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THE SILVERTONE PROSPECT IN 1961, FAIRBANKS DISTRICT, FAIRBANKS QUADRANGLE

The Silvertone prospect was visited on June 7 and July 12, 1961. The open-cuts are essentially the same as when they were mapped in 1958, except that more hand digging has been done in the west cut and more ore has been stockpiled there. During the summer of 1961, a mill was built 500 yards west of the end of the west cut and 75 yards north of Fox Creek. Because of the terrain, the distance by road from the cuts to the mill is one mile.

Fig. 1 is a flow sheet of the mill. Most of the milling equipment is equipment that was surplussed by the University of Alaska. The structure has been completed except for putting a permanent roof over the equipment. Ore is to be hauled to the mill in a small dump truck. The truck will dump the ore into a steel box in which a grizzly of steel rails has been built. The oversize material will stay on top of the grizzly until it is broken with a sledge. After the ore goes through the grizzly, it will go through a jaw-crusher and a set of rolls. From the rolls it will fall into a fine-ore bin. A trough and a small stream of water will be used to feed ore from the bin to the ball-mill. Pulp from the ball-mill and classifier will flow to two concentrating tables. Tailing will be impounded in an excavation on the right limit of Fox Creek.

A 20-kilowatt, diesel-powered generator furnishes power for the mill. Five electric motors are used: one for the crusher and rolls, one for the ball-mill, one for the classifier, one for the tables, and one for the pump. Water for the mill comes from an 8-inch well in the center of Fox Creek valley; the well was drilled by the Air Force when some construction was planned in the vicinity, but the plans were changed

before the construction was started.

A few small test runs late in the summer showed that some minor changes in the mill were necessary; most of these were changes in the electrical equipment, and they have been made. Some additional minor changes may be required, but the mill is essentially ready to operate.

College, Alaska
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Robert H. Saunders
State Mining Engineer

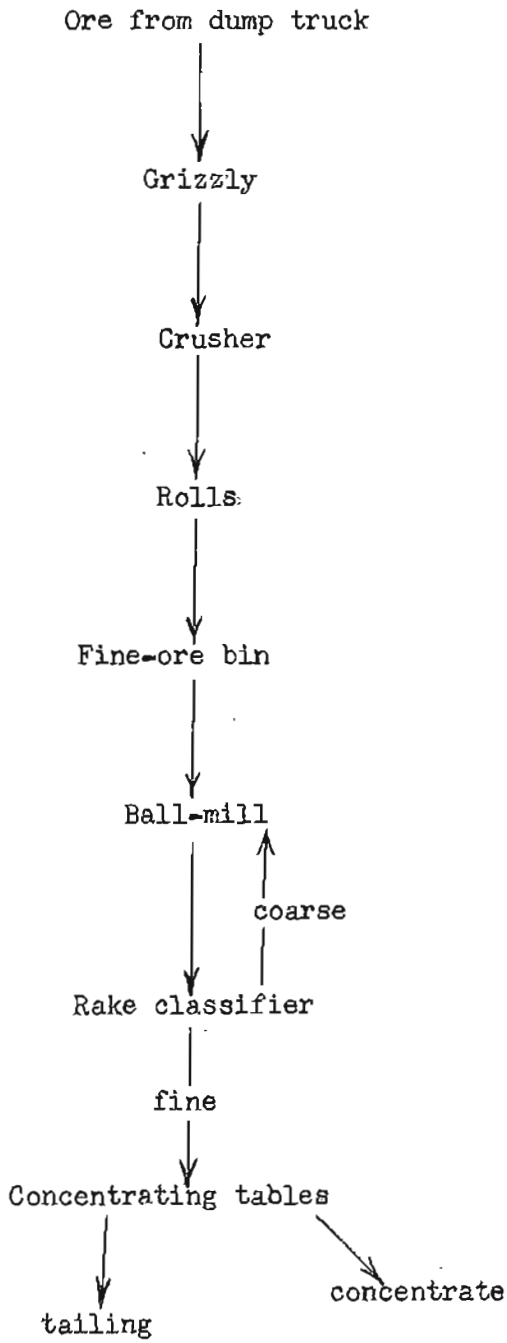

Fig. 1. Flow sheet of the Silvertone mill.

Fig. 2. View of the Silvertone mill from hillside on left limit of Fox Creek.

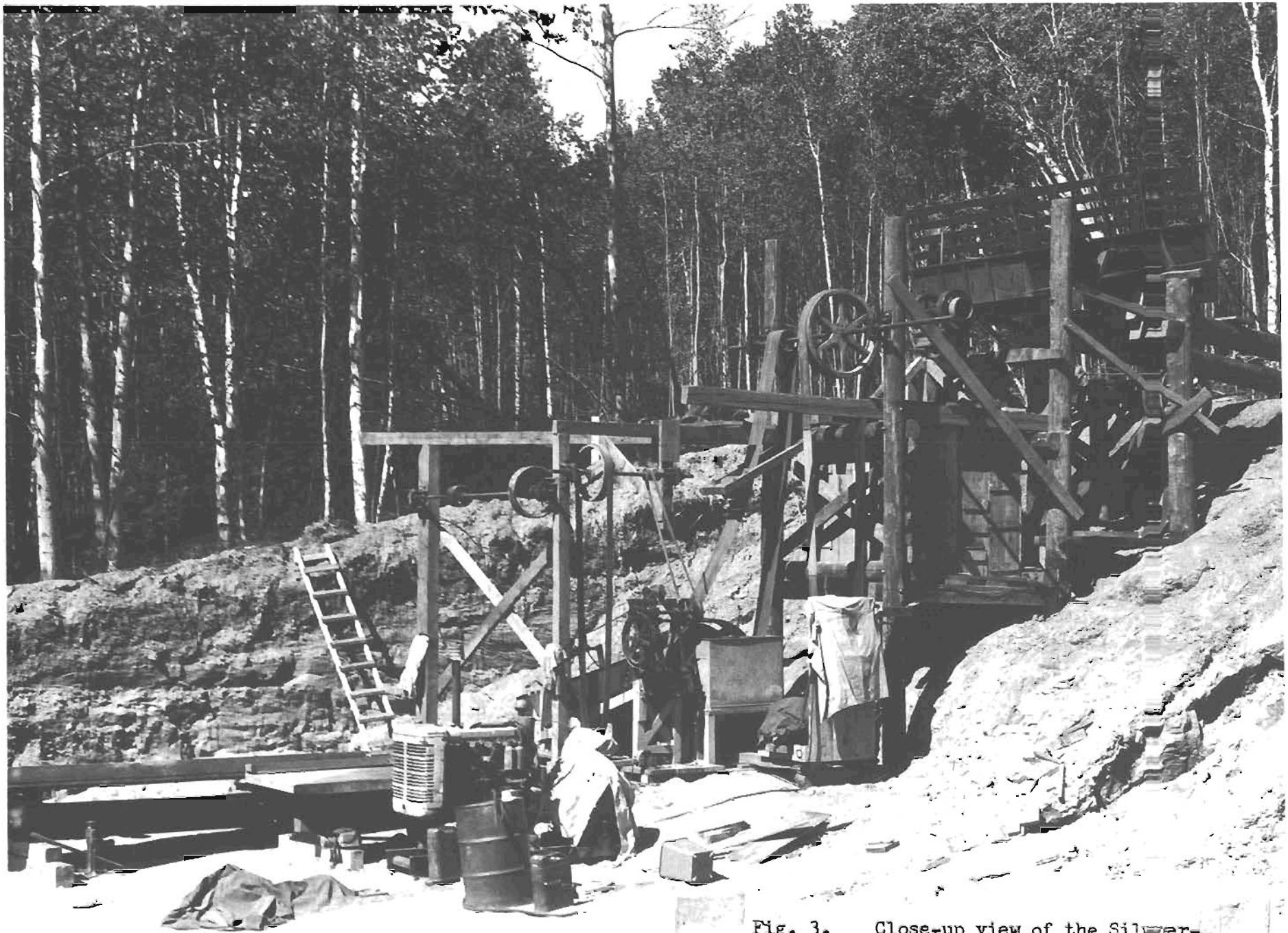

Fig. 3. Close-up view of the Silverstone mill.

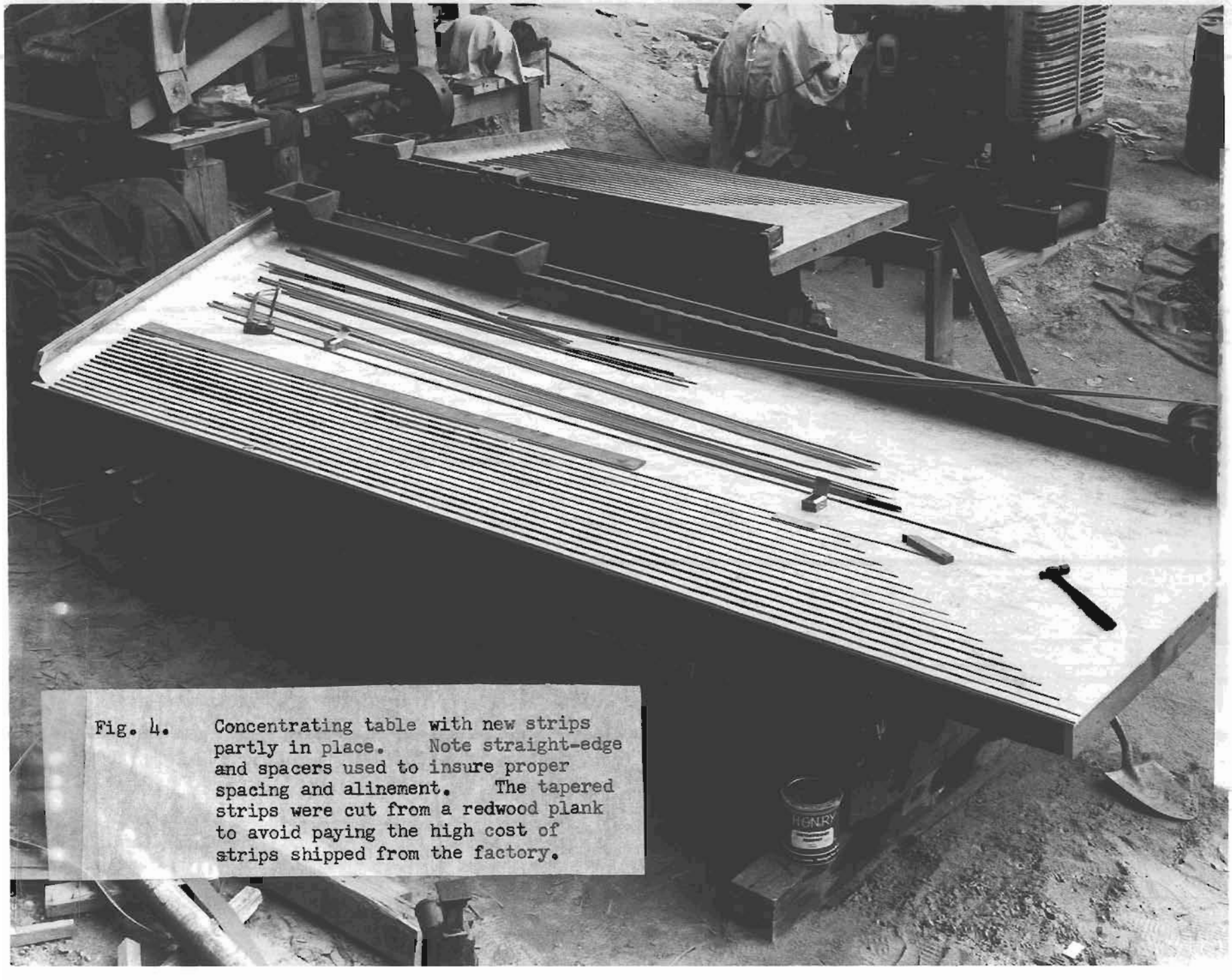

Fig. 4. Concentrating table with new strips partly in place. Note straight-edge and spacers used to insure proper spacing and alinement. The tapered strips were cut from a redwood plank to avoid paying the high cost of strips shipped from the factory.