

At Sheep Canyon Creek in the vicinity of the Centennial placer claim, *Item 12*

Paleozoic quartzite and limestone are exposed on the west side of the Cortez Range, but the crest of the range is deeply overlaid by rhyolite occurring in bedded form, in which the gold veins are found occupying shattered areas. In Lynn Canyon on the east side of the range, and a mile or so east of the Big Six mine, limestone and

Sheep Canyon Creek Placer

Sheep Canyon Creek is on the west side of the mountain. On this creek is the Arrowhead placer claim, owned by G. Graves, which is being mined by K. C. Nelson on a royalty basis. Nelson had the same claim leased last year, and during the 1931 season took out 250 ounces of gold from it which averaged $92\frac{1}{2}$ fine, worth about \$19. per ounce. Four men were employed, and at the end of the season Nelson had netted somewhat more than good wages. During the 1932 season Nelson stated that since he began on March 16th, the indications are that he will obtain as much gold or more this year.

The greater portion of the gold is coarse, rough and quite pure. It originated from the erosion of gold-quartz veins in the district, and is found near the heads of the ravines, having travelled but a short distance from its source. It is readily recovered by sluice boxes or rocker devices

Fig. 3. Washing earth and clay out of placer gravel by means of a spring-tooth harrow and small stream of water, Lynn, Nevada.

The following method of placer mining is used by Nelson: A small reservoir has been constructed in the canyon to impound the small flow of water, which is not more than 2 or 3 miners inches. The gravel in the creek bed is loosened with a horse-drawn spring-toothed harrow while water is flowing over it from the reservoir.



Fig. 3 Washing earth and clay out of placer gravel by means of a spring-tooth harrow and small stream of water, Lynn, Nevada.

Sheep Canyon Creek Placer, continued.

By this means a large portion of the earth and clay is removed from the gravel. The partly washed gravel is then moved forward by a scraper to the head of a power driven long-tom, and is shoveled into it by hand, while a small stream of water passes through. The long-tom is merely a sluice box 16 feet long, 10" deep and 12" wide, with gold-catching wooden riffles in the bottom. It is rocked from side to side by a small $1\frac{1}{2}$ h.p. gasoline engine by means of an eccentric rod connection. In the bottom of the box are ordinary Hungarian type riffles of 1" x 2" wood strips spaced about 2 inches apart. In the upper end of the box is placed a different type short riffle composed of a board perforated with many 1-inch holes. The board is supported 2 inches above the bottom of the box by a wooden grating. This short head section catches two-thirds of all the gold and is cleaned up frequently. The lower riffles are made in two 5-foot sections. Notwithstanding the small amount of water used, tailings from the box are said to contain less than 5¢ per cubic yard.

Early in the season when more water is available, ordinary sluice boxes are used above. When all water flow ceases sometime in June, dry wash or blowing machines are resorted to, and work continued until fall. Large dumps of tailings from the dry-wash machines have accumulated which contain from \$1. to \$2. per cu. yd. unrecovered gold. It is planned to wet wash this at some future time. Overburden removed from the top of the gravel is at this time used to build the reservoir higher.

Fig. 3-A. Nelson Reservoir. Sheep Canyon Creek, Lynn District, Nevada.

Fig. 4. Power operated long-tom. At right are shown the 5-foot riffles, and also the short perforated board used in the head section.



Fig. 3-A.

Nelson Reservoir.

Sheep Canyon Creek,

Lynn District.

Fig 4



Fig. 4.

Power operated long-tom.

At right are shown the
5-foot riffles, and also
the short perforated
board used in the head
section.



Fig. 5

The rocking sluice box
in operation. A small
gasoline motor driven
centrifugal pump recon-
veys the settled water
to the head of the box.

Sheep Canyon Creek Placer, continued.

Fig. 6. End view of the rocking sluice box in operation.

The box will handle about 4 cu. yds. per hour.

George Graves is placering ground a few hundred feet north of Nelson's. Graves uses a patented power rocker, photographs of which are shown in Figs. 7, 8 and 9.

The outside dimensions are 27" x 49" at the top, and 6" narrower at the bottom. It is 24" high in front and 21" in the rear, and rests on wooden rockers. The top is covered with an iron plate perforated with $5/8$ " holes spaced $2\frac{1}{2}$ ", staggered. Beneath the iron plate are three successive riffles made of wood and canvas, set at such angles that the fine gravel travels continuously across them from head to foot, each tray having a fall of 3" from head to foot. Each tray is a frame of $1\frac{3}{4}$ " x $\frac{3}{4}$ " wood with transverse slats, the whole covered with canvas to which is tacked cross strips of wood $\frac{1}{2}$ " x $\frac{1}{4}$ " to form the riffles. The box is rocked with a 6-inch stroke at the rate of 40 strokes per minute. Two men can put through about 1 cubic yard per hour on an average, but when the gravel is free from clay Graves states that it will handle from 2 to 3 yards per hour. Practically all gold in Lynn gravels is caught on the first tray. The cost of building the entire machine, including price of the engine, will not exceed \$160.00.

Prior to perfecting this machine, Mr. Graves first used a hand-power long-tom, and then a wide, side-shake, power driven concentrating table, both of which have now been discarded.

Fig. 10. Graves side-shake placer concentrator.



Fig. 6.

End view of the rocking
sluice box in operation.



Fig. 7.



Fig. 8.



Fig. 9.



Fig. 10