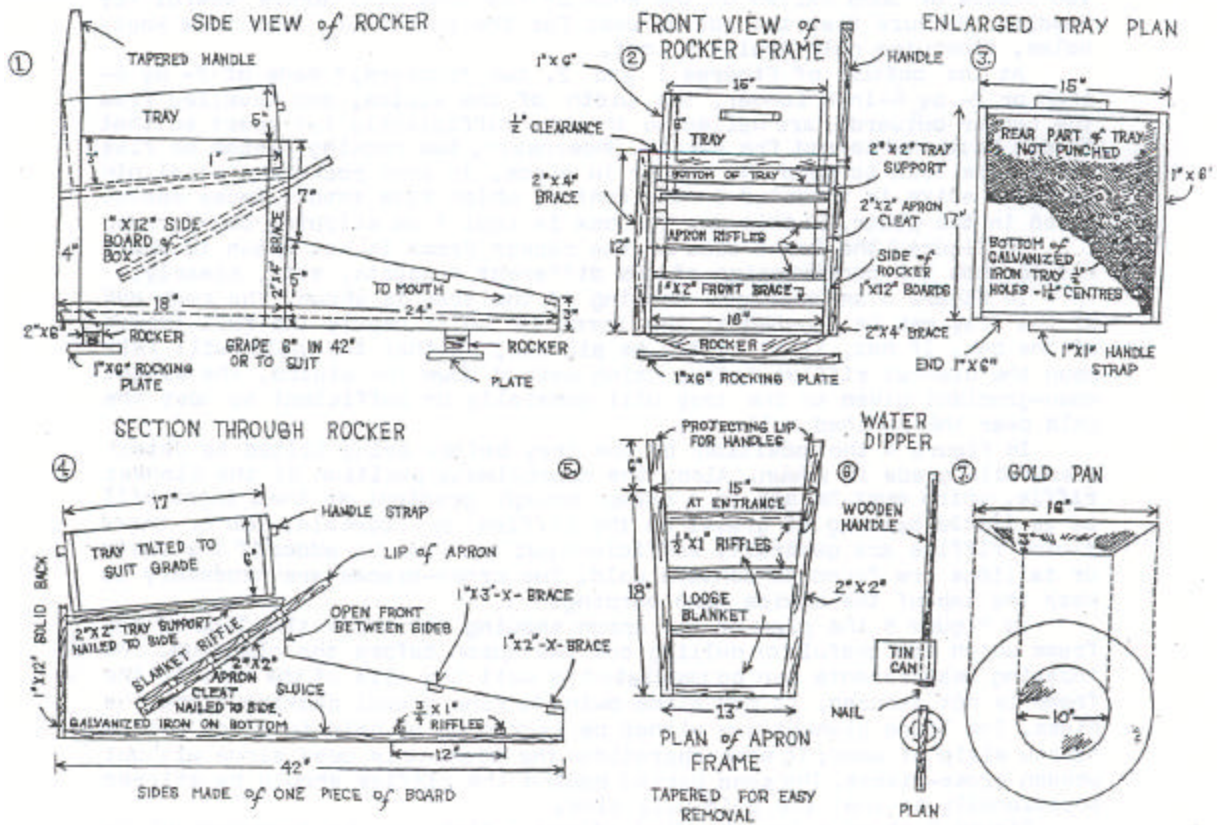


The Detailed Plans for Building a Rocker

The first part of this chapter discusses the operation and some of the uses of a rocker as well as a sketch of a rocker and some simple plans. It is conceivable, however, that some of our readers may want a more detailed plan of a rocker and the exact directions on how to go about building one. Although there are various sizes of rockers and a few slight variations in types, the one on which the plans and directions are given on the next two pages is a standard type. The officers of the Department of Mines of the province of British Columbia drew up both the plans and the directions in Bulletin No. 21, issued by the Department in 1959. The average individual should, without too much difficulty, be able to build a reliable rocker from the diagrams and directions given.



A Detailed Plan of a More Elaborate Gold Rocker

TAKEN FROM THE ORIGINAL DRAWING IN BULLETIN NO. 21 OF B.C. DEPT. OF MINES.

Building a Rocker

(Department of Mines Bulletin No. 21 "Notes on Placer Mining in B.C.")

Figure 1 is the side view of a rocker showing the 2" by 4" side braces nailed to the side-boards of the box. One of these is extended and tapered for a handle. Each side of the box and sluce can be cut out of one piece of 1" by 12" lumber, 42 inches or more in length. The bottom of the box, shown in Figure 2, can be made of one piece of board 16 inches, wide and 42 inches long. If not procurable, two pieces

planed so that they fit tightly together, can be used. It is safer to cover the bottom of the sluice with canvas, galvanized iron, or tin to prevent leakage, and, in the latter case, assist the flow of sand and gravel. The tray, which is built of 1" by 6" inch lumber, 17 inches long, with screening or a punched galvanized plate nailed to the bottom or held in place with a 1" by 1/2" inch wooden strap, is set upon two 2" by 2" inch supports nailed to the side of the box at an angle sufficiently great so that when the entire rocker is set at the proper gradient it will tilt slightly forward. Make the outside measurements of the tray small enough so that it can be removed easily. Two pieces of wood nailed on the ends of the tray will prove useful for handles. Be sure that the boards used for the rocker, are free from knotholes, otherwise, gold could be lost.

At the bottom of Figures 1 and 2, two "rockers", made of 2" by 6" inch or 2" by 4" inch lumber, the width of the sluice; and beveled from the center outwards, are nailed to the box sufficiently far apart so that it can be rocked to and fro easily. Underneath, two rocking plates or flat stones are laid to keep the rocker in place. In some rockers, a steel pin or large spike is inserted in the center, which fits into a loose socket bored in the plate. In this way the box is kept from slipping down-grade.

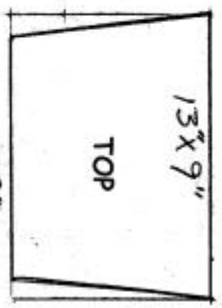
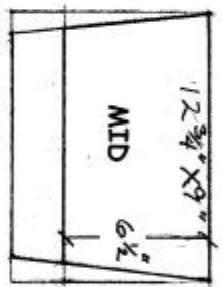
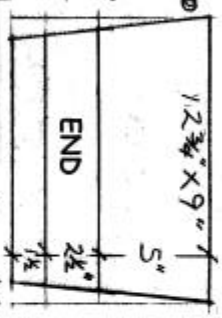
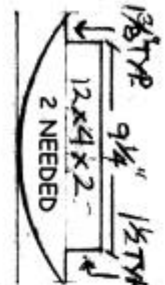
In figure 2 the front view of the rocker frame is not drawn to scale but to show the construction of the different supports, etc., clearly.

In Figure 3 an enlarged drawing of the tray is shown. The rear end of the tray can be punched if the apron is built nearly the full length of the box. If not, it is better, as planned, so that the gold will fall upon the blanket riffles before being washed down the sluice. The slight down-gradient given to the tray will generally be sufficient to move the gold over the punched holes.

In Figure 4 the position of the tray before being tilted to obtain a suitable grade is shown. Also, the approximate position of the blanket riffle, which must be set on a steep enough gradient so that there will be as little packing of gravel on the riffles as possible. Two or three sluice riffles are generally sufficient but more can be added if the waste or tailings are found to contain gold. Two cross-braces are necessary to keep the top of the sluice from warping.

In Figure 5 the plan of the apron showing the projecting lips of the frame which are useful for pulling out the apron before the clean-up. The tapering measurements can be regulated to suit the size of the box. If the frame is not tapered, it may stick owing to fine gravel packing along the sides. The loose blanket can either be tacked on or held in place with a narrow strip of wood; in some operations the blanket is used alone without wooden crosspieces. The sand packed behind the riffles should be stirred occasionally so that the gold will sink.

Figure 6 shows a long-handled dipper which can be constructed by punching a hole through the top of a can and driving a nail to keep the can from slipping.



ROCKER BOX

LENGTH	PCS
A - 11 1/4"	2
B - 6"	2
C - 2 3/4"	4
D - 32 3/4"	2
E - 4"	2
F - 7 1/2"	2
G - 3 3/4"	2
H - APRON - 4	4
I - 1 3/4"	2
J - 3 1/4" x 3 1/4" x 3 3/4"	2

APRON MUST BE CUSTOM CUT AFTER BOX IS MADE.

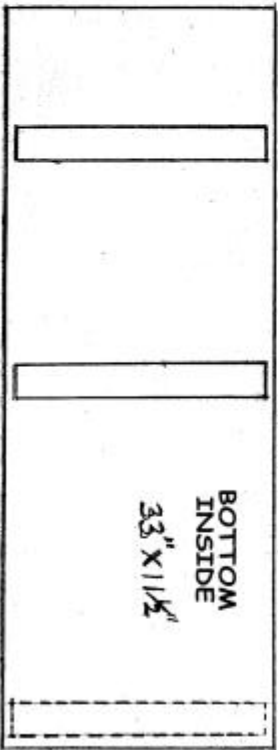
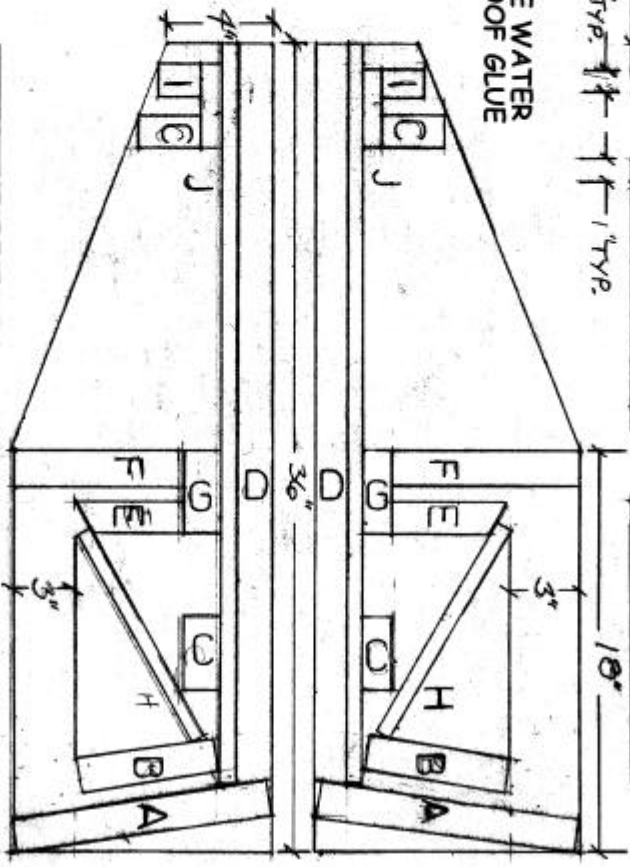
- 6 - 1 1/4" x 20 (TPD) x 2 1/4"
- 12 - 1/4" WASHERS & NUTS

The sides and bottom are 1" x 12" (Nominal)

All cleats are 1" x 2"

The Hopper or Grizley is 1" x 4" and the Hopper bottom is hand made punch plate with 35 holes, each with 5/16" diameter. The Apron is made of 1" x 2" frame and the covering material is canvas.

The Hopper and Apron are custom made after the Sides, Bottom, and Spreaders are put together.



Austin A. Grizley