

NEW HOME-MADE WOODEN TABLE ALLOWS FASTER CLEANING AND INSPECTION OF CONES

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Thousands of bushels of cones per year are purchased by the Forest Service from private collectors. When the cones are delivered to forest collection points, they are inspected for quantity and quality of seed and are separated from trash and litter.

Without proper equipment, inspection and cleaning requires a long time. In the fall of 1964, John Wilson of the Lolo National Forest (Mont.) presented a concept for a cone inspection table that would facilitate inspection and remove most of the litter from the cones. The Missoula Equipment Development Center (MEDC) was requested to design the table.

Description of Table

The primary requirements were that the table be as inexpensive as possible and be able to handle cones of various sizes. Commonly available materials were to be used to construct it. The table (fig. 1) consists mainly of a vibrating bed, top and base frames, and two platform assemblies.

The tabletop is 3 by 8 feet; the bed is constructed of 1-by 2-inch slats 1 inch apart. For small cones, the slats are covered with 1/2-inch 1315-gage expanded metal. The sides are 12 inches high. A spout and flap for stopping the flow of cones is at the lower end of the table. The base is

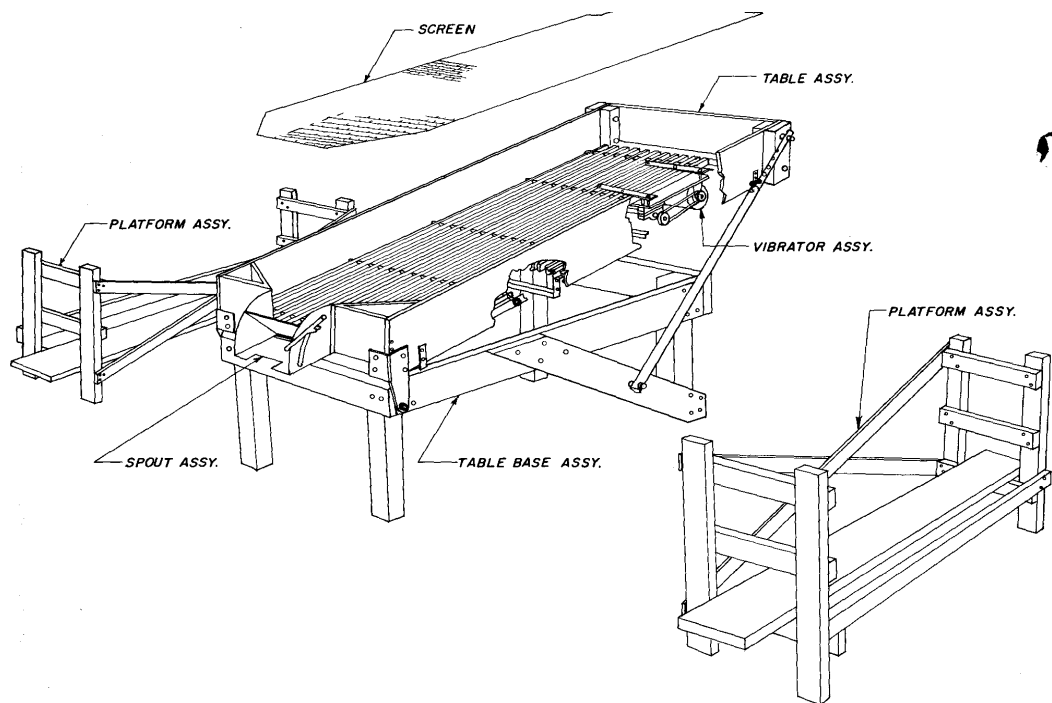


Figure 1.—Cone Inspection Table

sturdily constructed to withstand the vibration.

The front of the tabletop is hinged to the base and telescoping tubes elevate the rear of the table. The table must be vibrated to ensure an even flow of cones. A 1/4-h.p. motor, driving an eccentric weight through a belt reduction, obtains the necessary low-frequency, high-amplitude vibration.

The two adjustable platforms aid in dumping cones onto the table and provide an elevated vantage point for the inspector.

Operation of Table

In operation, cones are dumped onto the upper end of the table. The vibrator spreads the cones and moves them down the bed. The speed at

which the cones move is controlled by tilt of the bed. Dirt, needles, and other litter fall through the slats or expanded metal. The cones are funneled into a container at the bottom of the table.

Two or three men are required for efficient operation. One man, sometimes the collector, dumps the cones onto the table; a second man examines the cones and removes any litter too large to go through the slats; and a third man measures and sacks the cones.

This table aids in rapid cone inspection and cleaning. It can be constructed of common materials without elaborate shop facilities for less than \$300. Construction drawings are available from the MEDC.