

A PRACTICAL HOMEMADE NURSERY SOIL SIFTER

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A practical machine to sift fine soil for potting has been designed and built for a materials cost of under \$100 at Stoneville, Miss. (fig. 1). The base unit and parts were obtained from a junked combine. A hand shovel is used to load the machine, and particles not sifted are removed with

the shovel. One man can sift about 1 cubic yard of soil per hour.

A section of the combine containing the straw racks, rocker arms, and pulleys was removed and enclosed with an angle iron frame. Expanded metal was used in place of the straw racks as the support for the hardware cloth, which can be installed in different gages to sift soil to varying fineness.

Two 6-inch by 7-foot pieces of channel iron were

¹ The author is stationed at the Southern Hardwoods Laboratory. The laboratory is maintained by the Southern Forest Experiment Station in cooperation with the Mississippi Agricultural Experiment Station and the Southern Hardwood Forest Research Group.

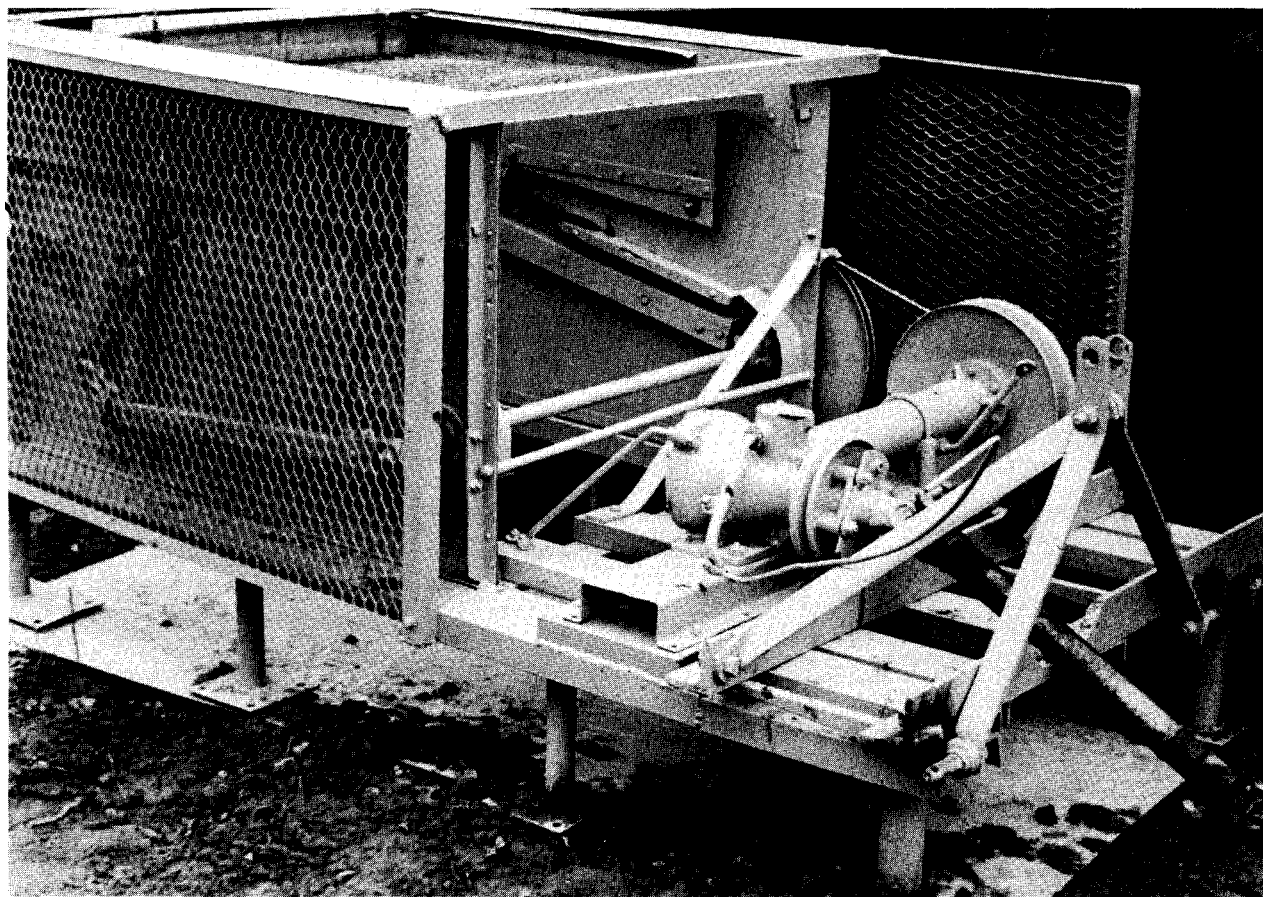


Figure 1.—This mechanical soil sifter made from parts taken from an old combine has proved successful at the Southern Hardwoods Laboratory, Stoneville, Miss. Much fine soil is used there for potting. Materials cost less than \$100. (*Note metal guard for safety.*)

used as runners, and the frame was fastened to them. A gearbox with clutch and pulleys, obtained from the combine, was mounted on the runners and connected by a belt to a pulley that drives the rocker arms. A power takeoff shaft was coupled to the gearbox. A three-point hitch was installed for pulling the sifter with a tractor. Safety guards of expanded metal were installed on each side.

Stands made from metal pipes, with 6- by 6-inch

metal feet, were installed on the bottom of the channel iron runners to provide adequate space for soil to be easily removed after sifting. When the sifter is in use, a piece of sheet metal is placed under it to prevent contamination of the sifted soil (fig. 2).

Materials cost less than \$100. About 24 man-hours were required to design and build the machine.

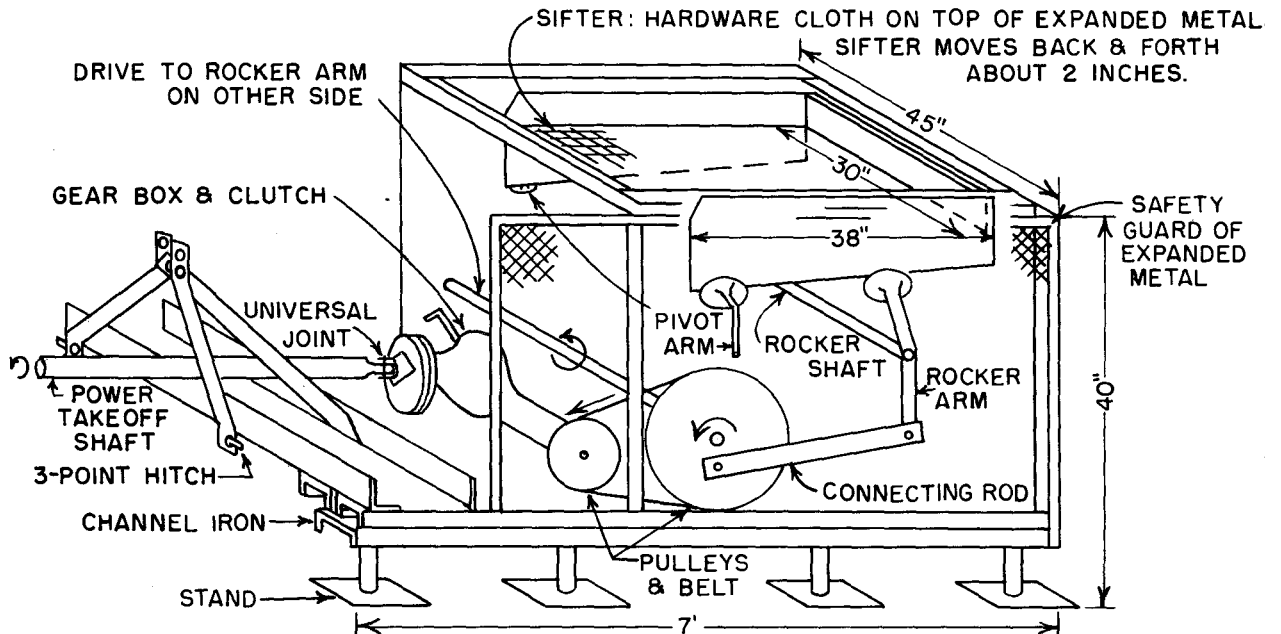


Figure 2.—Drawing of mechanical soil sifter. Note points of support and action of sifter box.

Over One Million Acres Planted

Trees were planted in every State during fiscal year 1967 (July 1, 1966-June 30, 1967). The total area planted amounted to 1,406,440 acres according to the annual report

of forest and windbarrier planting and seeding in the United States, issued by the U.S. Forest Service.