A SIMPLE DEVICE FOR SOWING EXPERIMENTAL SEED LOTS AT UNIFORM SPACING

R. L. SCHMIDT, *Forester,*
British Columbia Forest Service
Victoria, B.C.

Uniform spacing of seed in a seedbed is important in many forest research projects. When using large numbers of seeds, the sowing operation can be both tedious and costly.

A sowing device was designed and constructed to facilitate the sowing of seed for a Douglas-fir provenance experiment. Five rows of 46 holes each (7/16 inch diameter) were drilled simultaneously through two sheets of plexiglass clamped together (top sheet 24 by 41 by 1/8 inch, bottom sheet 25 by 43 by 3/16 inch). This allowed 230 seeds to be sown each time. The distance between rows was 5 inches, and the distance between hole centers was 7/8 inch. After drilling, the bottom sheet was fastened to a wooden frame made of 3/4- by 1-inch stock. A plexiglass strip 1 by 1/8 inch was fastened to the bottom sheet, flush with the edge. This strip served as a guide to hold the top sheet in place during loading and to aline it during unloading.

During loading the sheets of plexiglass were locked, with the holes offset to prevent seed from falling through. Seeds were individually placed in each hole. To reduce fatigue, this was done with the seeding device placed on a service wagon (fig.

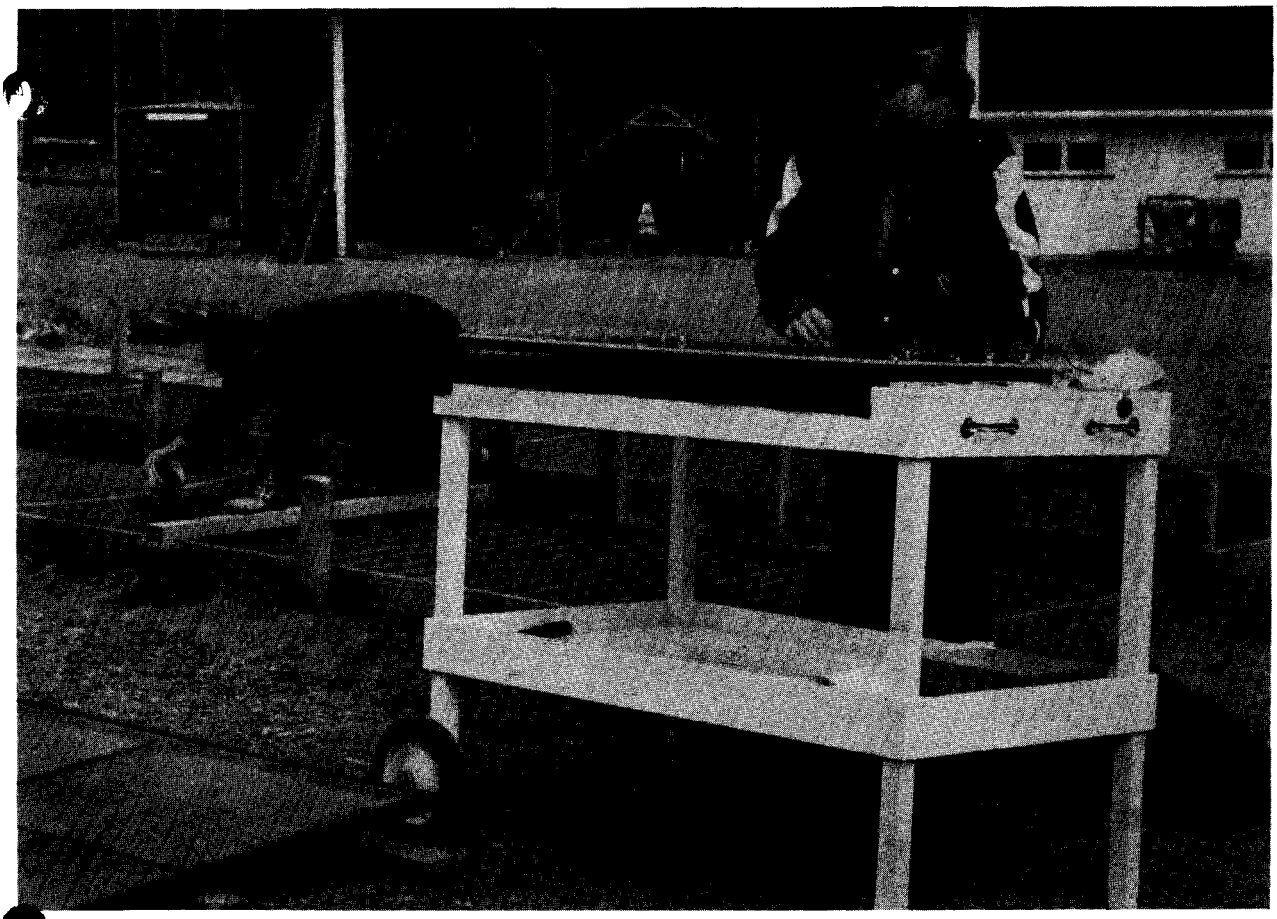

Figure 1.—One operator is loading the device placed upon a service wagon, while seed already sown is being covered by a second operator.

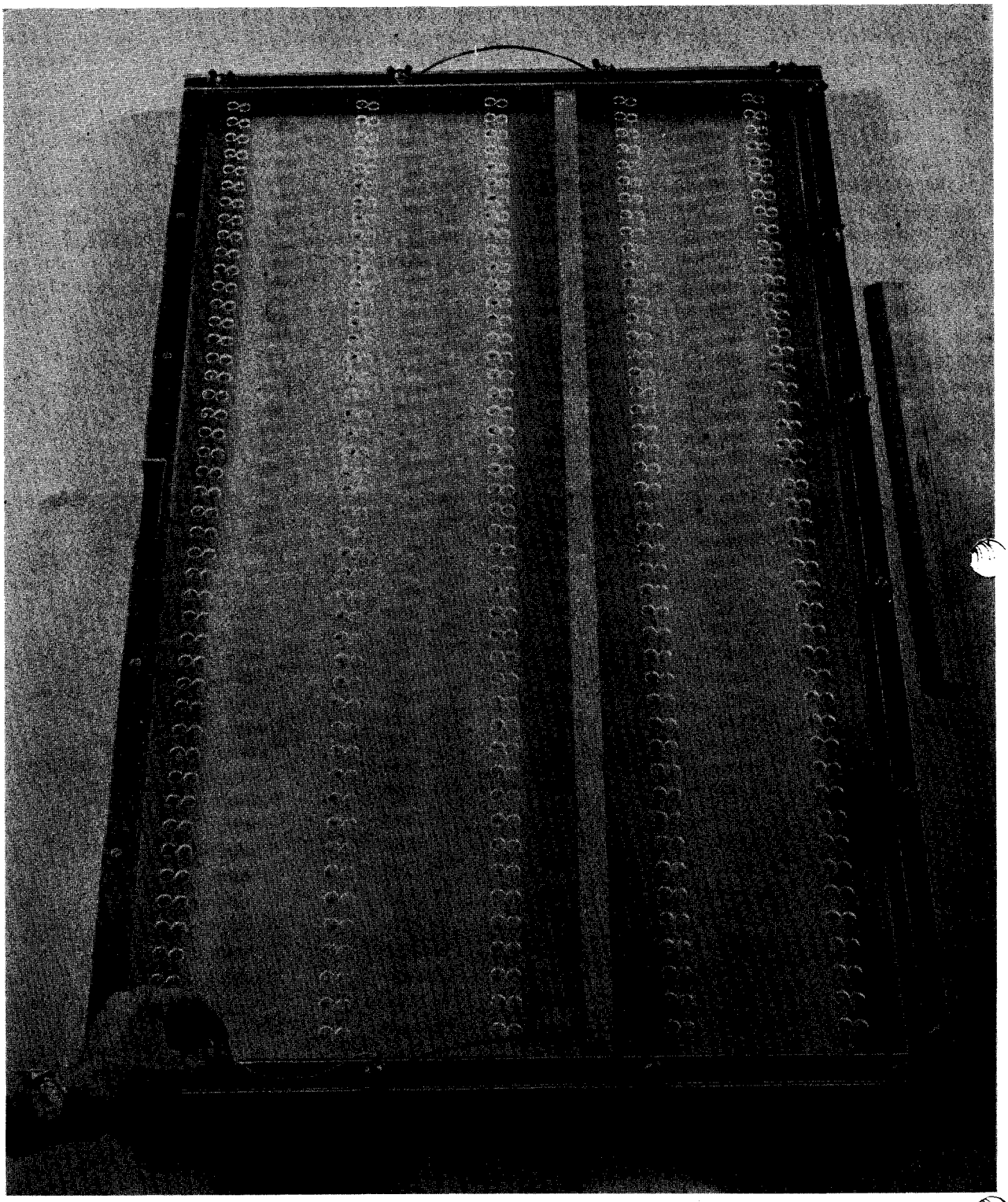

Figure 2.—The holes in the top sheet have been loaded with Douglas-fir seed. The locking pin is being removed to permit unloading.

1). When all the holes were loaded with seed, the device was lowered to the bed surface and the locking pin removed (fig. 2). The upper, sheet was moved laterally to the unloading position (holes of both sheets alined), . and the seed fell to the bed surface. An angle bracket protruding downward one half of an inch from each corner of the frame made an imprint in the soil to guide subsequent placement of the device.

In an 8-hour day, three operators sowed 20,000 seeds when several large lots of seed were sown, or 12,000 seeds when many small lots were sown. This included the application of a soil cover.