

TAPE FOR TYING SEEDLING BUNDLES

G. W. King

Nursery Superintendent, Virginia Division of Forestry Boulevard, Virginia

Do you have a bundle tying problem at the end of your grading table? We did, and at times the confusion resulted in our producing bundles, the likes of which we were not the least bit proud.

Many approaches were tried to improve and speed up our bundle tying. Several different mechanical string tiers were tried but could not be depended upon. Apparently the units are not designed for rugged, dirty work. Rubber bands preloaded onto metal cones, fine wire covered with paper ribbon, and cotton covered copper wire were all tried. Hand tying with precut string was the most expedient, but because we had to have high production per table, two tiers per table (and sometimes three) were needed. This, in spite of careful selection of personnel to do the tying, was still not satisfactory. Two or three people meant four to six hands and elbows trying to work in a very limited area.

"Brain storming" finally started us in the right direction -- why not use tape. A variety of self-adhering tapes were tried in a variety of ways. We eventually settled down to using 3/8-inch Scotch pressure-sensitive tape which comes 60 yards per roll and is available in six different colors. The dispenser (figs 1 and 2) seems to be satisfactory. To date (February 25) we have bundled over nineteen million seedlings, 50 trees per bundle. One employee, with a few minutes training, can take care of one grading table running at the rate of 25, 000 trees per hour.

We have estimated that the tape system cost us about three-fifths of a cent more per thousand trees. This difference was arrived at in the following manner. Two string tiers per table at 75 cents per hour cost \$1. 50, plus the slight cost of string. The tape at 46 cents a roll (approximately 2 rolls per hour) and one tier cost \$1.67, or 17 cents more per hour at a production rate of 25, 000 trees. Not taken into account was the frequent assistance of a third string tier when trees jammed up and the unavoidable slow-down of grading when the graders saw a jam at the end of the table.

In straight dollars and cents we believe we are at least breaking even. The important factors are the very noticeable improvement in packing and a smoother functioning grading room. Another advantage is the use of color

in separating species, orders, grading table production, day's production, etc. A variety of schedules can be carried out with no effort simply by assigning colors according to the job or information desired.

Do the customers like the change? We think so. A small contract planter working near Charlottesville maintains that the change from string to tape saved him about \$1. 50 per day in time saved cutting bunches. Since this man does hand planting it is rather evident that large planters using mechanical tree planters would save a proportional amount and be just as pleased.

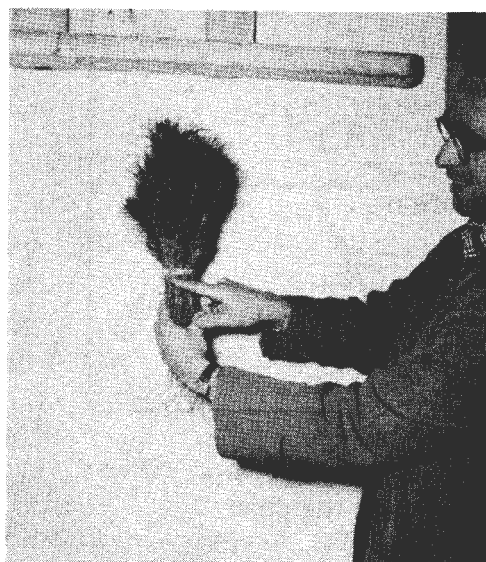
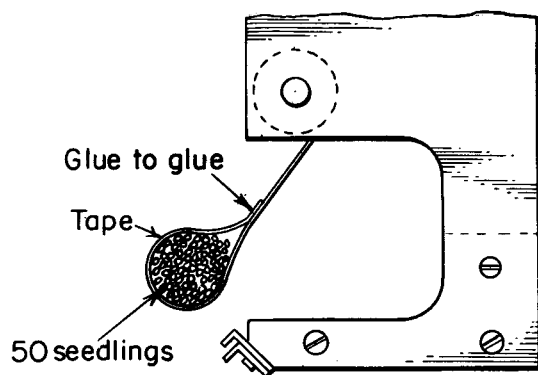
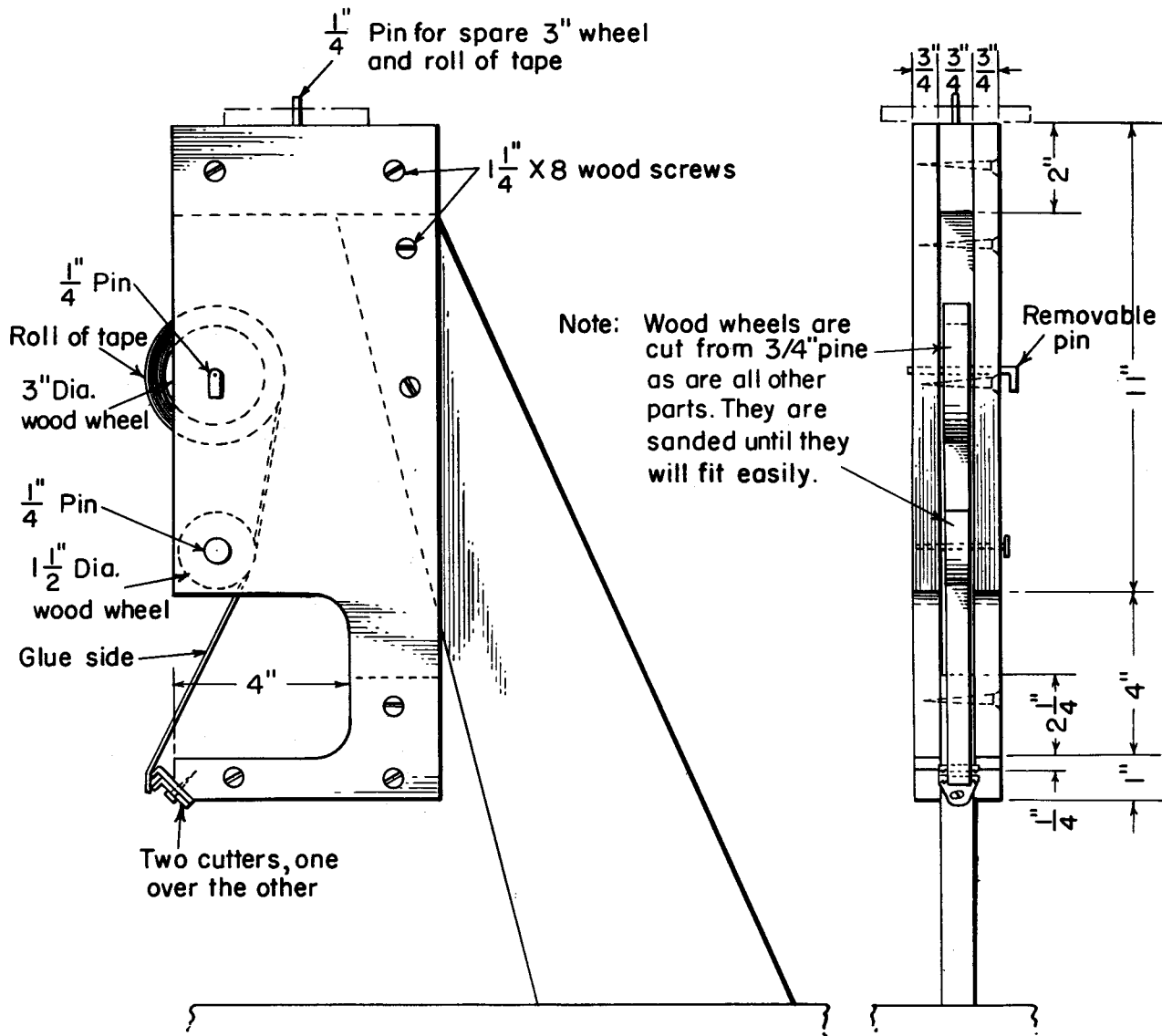
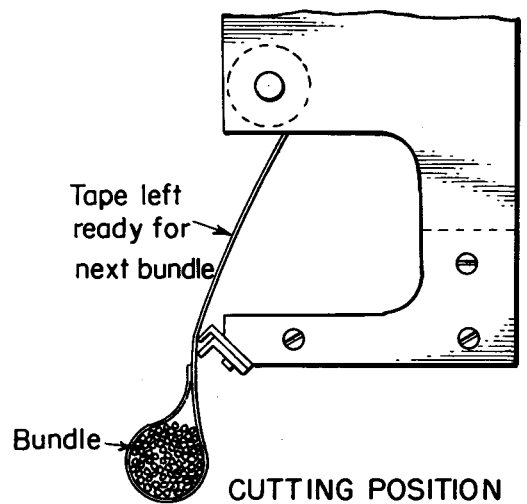


Figure 1.- Left, Tape dispenser ready for next bundle. Right, Taped bundle ready for packing.



TYING POSITION



CUTTING POSITION