STEEL STRAPPING TREE BALER

H. G. Hertel, Nurseryman Iowa State Conservation Commission Nursery, Ames, Iowa

A baling machine was constructed at the State Forest Nursery from a blueprint sent by the Southern Region, U.S. Forest Service, and from photographs of balers used in Georgia. The baler has been most satisfactory (fig. 1). We use a heavy Kraft paper with reinforcing cord and asphalt as a center ply and steel strapping for tying the bale. Since the roll of paper is mounted above the baling surface, it is not necessary to cut the paper until the trees are in place in the bale. This eliminates waste since the operator knows exactly how much paper he will use.

Signode seal feed strapping machines were the ones chosen, and they have proved to be excellent. This machine tightens the strapping, fastens the seal, and cuts the strap-all accomplished with the one tool. Again there is no waste since the excess strap gained in tightening the bundle is fed back to the strapping supply reel.

The steps in baling are as follows:

1. The strap is led across the bottom -of the baler in the position where it will hold the bale (fig. 2).

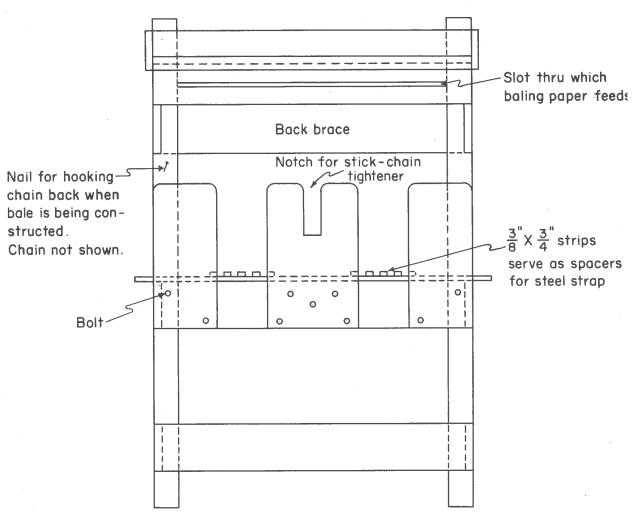
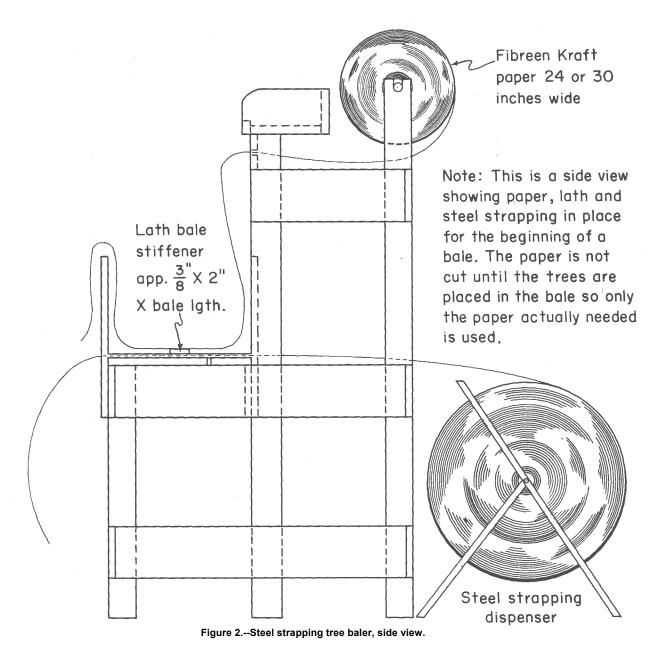


Figure 1.--Steel strapping tree baler, front view.



- 2. A stiffening lath is placed over the strap and will eventually prevent bending of the completed bale.
- 3. The paper (24 or 30 inches, in our operation) is placed in the baler so that the trough is covered, and an end about 12 inches long hangs over the front.
- 4. Alternate layers of moist sphagnum moss and trees are placed in the paper "trough."
 - 5. The paper is cut at the required point and the two ends rolled by hand around a lath.
- 6. The chain and stick clamping arrangement prevents loosening of the bale while the strapping machines are put in place (fig. 3).
 - 7. The clamping stick is removed and the bale is complete.

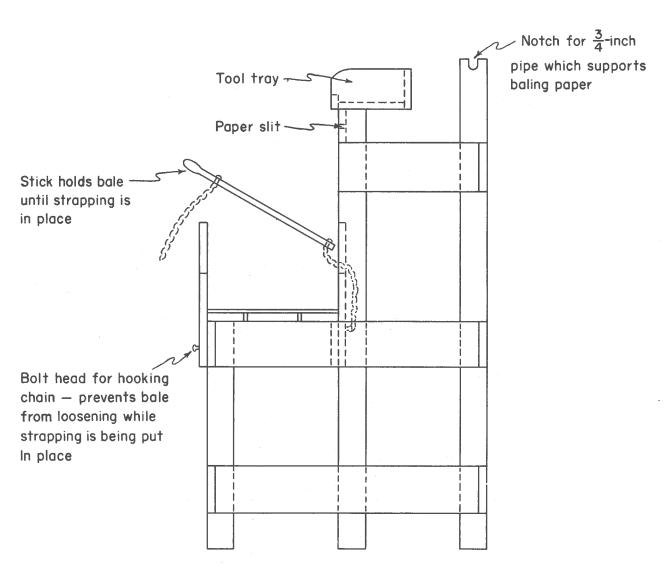


Figure 3.--Steel strapping tree baler, side view.

This method has proved to be simple, conservative of materials, and versatile. Hardwoods and conifers in varying sizes of package may be handled with the same baler. Much of our stock is shipped by railway express, and these bales, which defy rough handling, give no breakage problems.