

THE CORRECT METHOD OF PREPARING AND FITTING DENDROMETER

BANDS TO RECORD TREE GIRTH INCREMENT

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1. FITTING BANDS TO A PLOT FOR THE FIRST TIME

1.1 Field Measurements

Measure all trees to be banded and mark at 4'3" from the ground, numbering each tree clearly in sequence.

1.2 Smooth the bark around each tree at the 4'3" mark using a sub-former or rasp to ensure the band fits tightly and no loose bark remains.

1.3 Measure and book against each tree number the exact girth at the 4'3" mark to the nearest 1/10th of an inch.

When the field measurements are completed the dendrometer bands can be prepared at headquarters using the following method.

2. PREPARATION OF BANDS

2.1 Measure a piece of band (Aluminium tape  $\frac{1}{2}$ " wide) approximately 12" longer than the girth of the tree to be fitted. (i.e. Girth 24" cut band 36").

2.2 Starting at the left hand end of the measured band make the loop through which the band must be threaded when fitting takes place. (See figure 1).

2.3 Fit the band into the template approximately 2" from the loop and mark with a stylus the 3" or 6" scale, making sure the lower edge of the scale corresponds with the lower edge of the tape (see figure 2). Care should be taken to see that the stylus or knife used is only sharp enough to score the band and does not cut through the metal.

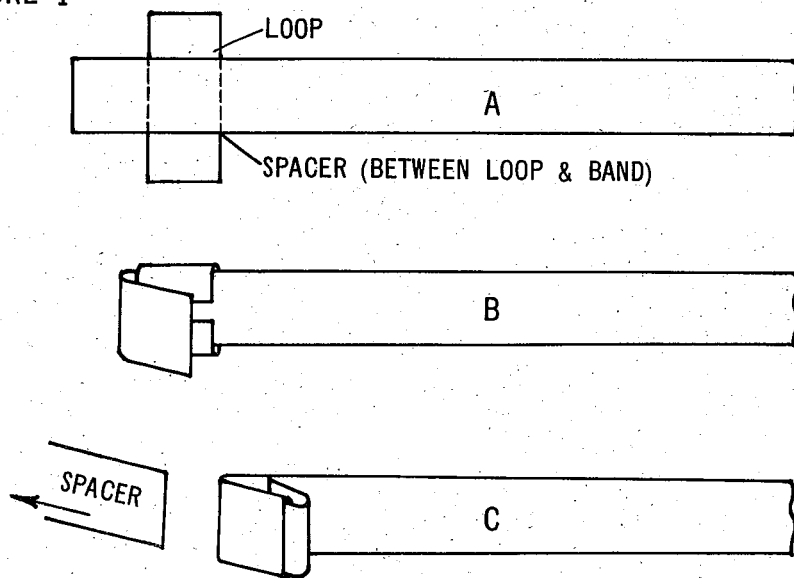
- 2.4 Measure the girth of the tree to be fitted from the last mark of the scale along the band from left to right (i.e. from the right hand end of the scale) and mark the top edge of the band at this point. Insert this mark into the template to coincide with the right edge of the vernier and mark the vernier scale along the top edge of the band from right to left of the point selected. The base of the vernier should then appear along the top edge of the band (see figure 2).
- 2.5 Cut out piece along the top side of the vernier scale with scissors (see figure 2) taking care not to remove too much of the vernier yet enough to enable the scale below to be easily read (see figure 3).
- 2.6 Tailor the end of the band approximately 2" beyond the vernier scale and punch a hole for the spring (see figure 2) (use leather punch).
- 2.7 Allowing approximately 6" to 7" from the right edge of the scale punch the second hole to enable the spring to be fixed with enough tension to hold the band tight against the hole. Finally tag the prepared band with its field number.
- 2.8 The Dendrometer bands can then be fitted to plot quickly and the fitted readings taken and recorded. (See figure 3 and note).

### 3. REPLACING BANDS IN THE FIELD IN ESTABLISHED PLOTS.

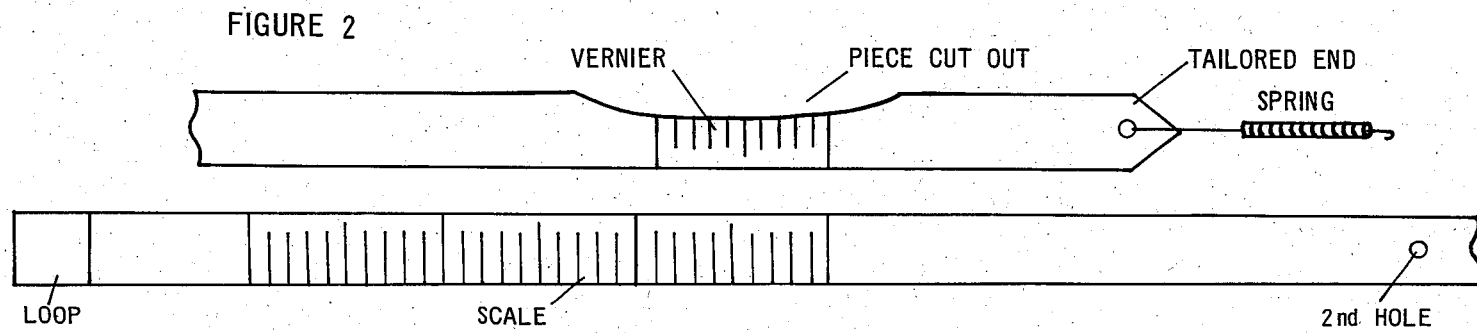
- 3.1 The old band after reading is removed and a new band is prepared from instructions 2.1, 2.2 and 2.3. The band is then fitted to the tree and the vernier scale position marked so that the right hand edge of the vernier coincides with the right edge of the 1/10th inch scale. The band is then removed and completed following instructions 2.4 to 2.8. The measurements quoted are imperial as all templates at present in use are of this scale, however the same instruction would apply if metric measurements are used.

When the preparation and fitting is mastered it takes approximately fifteen minutes to prepare, fit and record each band.

FIGURE 1

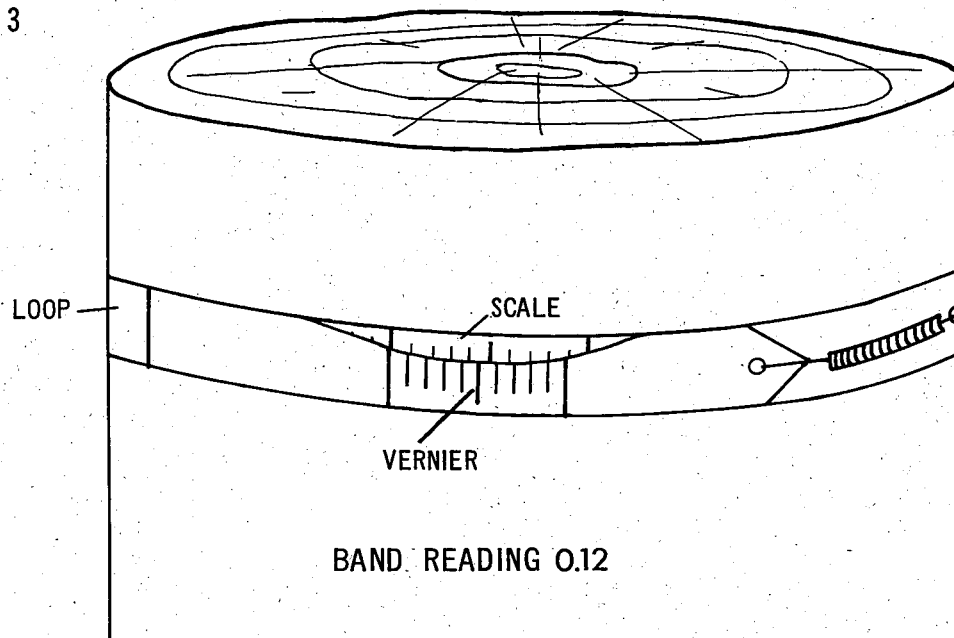


REMOVE SPACER AND PRESS LOOP ALONGSIDE BAND



BAND THREADED THROUGH LOOP TO OVERLAP SCALE

FIGURE 3



NOTE:

The Vernier moves along the scale away from the end fixed by the spring. If the instructions in the notes are correctly carried out the Vernier will always move along the scale in a clockwise direction and the correct fitting enables the reading of the band to be carried out quickly without fear of error from wrongly marked scales.