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SECTIONAL POLE FOR MEASURING TREE HEIGHTS

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SOUTHERN FOREST EXPERIMENT STATION

A sectional aluminum pole designed by the Silviculture Laboratory at Marianna, Florida, has proved useful for measuring tree heights. It is more convenient than a sectional bamboo pole¹ or a telescoping fiberglass pole. A tree 5 to 30 feet in height can be measured to the nearest tenth of a foot in 30 seconds. The pole is constructed of low-cost, readily available materials, is easy to maintain, and is light in weight yet durable. All heights greater than 5 feet are read directly at eye level.

Materials and construction details are indicated in figure 1. Permanent graduations can be made on the tubing by cutting it very lightly with a pipe cutter. Numbers about $\frac{1}{2}$ -inch high are marked with a center punch and hammer. A length of $\frac{7}{8}$ -inch O.D. steel pipe should be placed inside the tubing to keep it from bending while numbers are being marked.

Black paint placed in the graduations further improves their legibility.

To measure a tree, the 6-foot base pole, with attached canvas bag containing the upper sections, is placed upright at the base of the tree. Next, section 1 (fig. 1)—with the 5-foot graduation at its upper end—is raised parallel to the bole of the tree, but is not attached to the base pole. Section 2, with the 10-foot graduation at the upper end, is then fitted into the lower end of section 1 and the two sections raised upward along the bole. Other sections are added as needed. The second member of the two-man crew, the tallyman, signals when the pole is even with the top of the tree. Now the sections that have been extended up the bole are aligned with the base pole. The tree height is then read directly from the extended pole (in feet) and the 5.0- to 5.9-foot section

¹Liming, Franklin G. A sectional pole for measuring tree heights. *Jour. Forestry* 44: 512-514, illus. 1946.

of the base pole (tenths of feet). The "Parts in Reading Position" portion of figure 1 shows the base and extended poles properly aligned

for measuring a tree 18.6 feet tall. Trees up to 35 feet tall have been measured with this equipment.

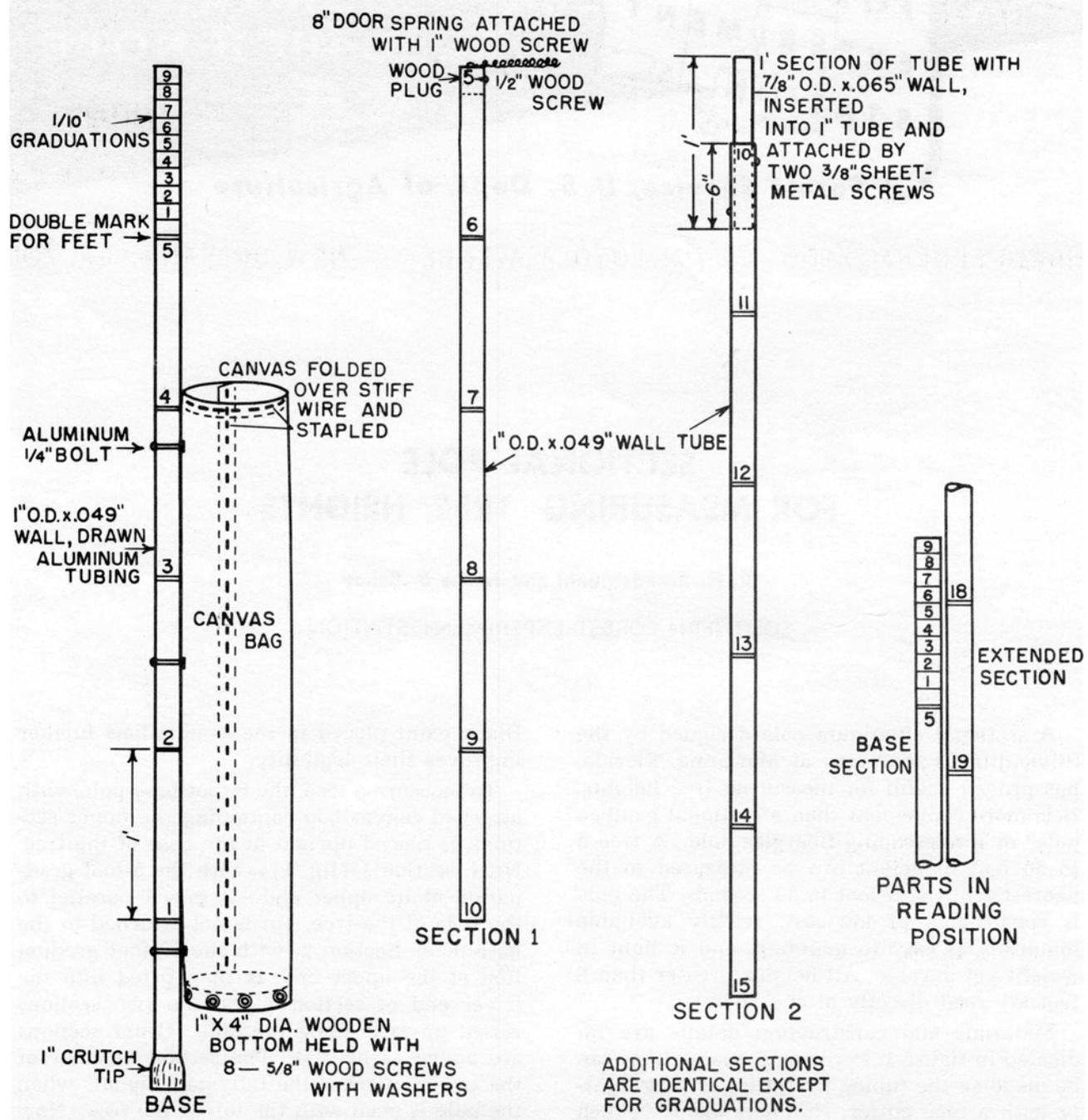


FIGURE 1.—Details of sectional measuring pole. All rough edges should be smoothed to prevent injury to hands and to insure good fit.