Golden Section Gauge

This easy-to-make gauge allows you to quickly scale shop drawings or project parts to the golden ratio.

As I discussed in the article on page 48 of Woodsmith No. 201, the golden ratio (1.618) can be a very helpful design tool. It gives you a reliable starting point when hashing out the overall proportions of a project and its individual components.

The golden section gauge shown at left will help you put the golden ratio to work. It allows you to scale your shop drawings or even smaller parts quickly and accurately without resorting to guesswork or a calculator. As the gauge is expanded or contracted, the distance between the three points will always maintain a true golden section.

The gauge is made using a golden section to size and connect the parts. Your gauge can be made to any overall size as long as this relationship is maintained. In the gauge shown in the drawings, the two long arms are divided into a golden section. The distance from the tip to the intermediate joint is 9”. The overall length (tip to the pivot point) is $14\frac{7}{16}$” ($9 \times 1.618$). The two shorter arms are likewise sized in length and connected to the long arms and each other based around this golden section.

I made my gauge out of strips of $\frac{1}{8}$” thick by $\frac{1}{2}$” wide hardwood. Maple or cherry are good choices. Remember that it’s not the overall length of the pieces that’s important but where they are connected. So be as precise as possible when laying out and drilling the holes for the bolts. The holes should be centered on the measurements given.