Sept. 29, 1931. A. A. FISCHER 1,825,266

COMBINATION RULE AND COMPASS

Filed Nov. 10, 1928

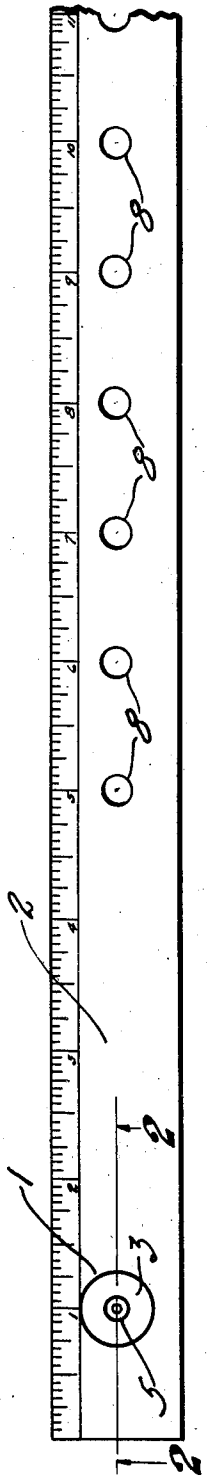


Fig. 1.

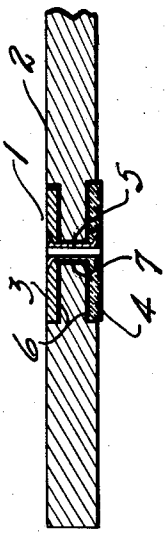


Fig. 2.

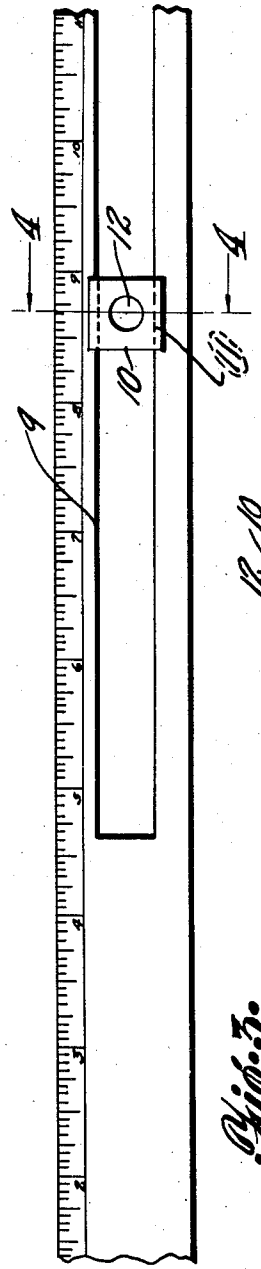


Fig. 3.

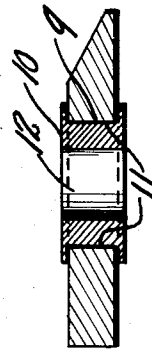


Fig. 4.

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UNITED STATES PATENT OFFICE

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COMBINATION RULE AND COMPASS

Application filed November 10, 1928. Serial No. 318,320.

This invention relates to a combination rule and compass and more particularly to a device adapted for use in laying out circles and lines upon a schoolroom blackboard or other plane surface.

The main object of the invention is the provision of an adjustable means for describing circles or arcs thereof which may be used upon the conventional rule or straightedge.

Another object of the invention is to provide a device of the above mentioned character which will be efficient in operation and simple, cheap and durable in construction.

With the foregoing and other objects in view the invention resides in the novel construction and arrangement of parts as hereinafter set forth and claimed.

In the drawings:

Figure 1 is a plan view of the invention partially broken away.

Figure 2 is an enlarged section along the line 2—2 in Figure 1.

Figure 3 is a plan view of a modification of the invention, also shown partially broken away.

Figure 4 is an enlarged section along the line 4—4 in Figure 3.

The invention consists of a pivotal element denoted generally at 1, the same being rotatably mounted in the rule 2 adjacent one end thereof as shown in Figure 1. The said pivotal element 1 comprises the circular metal plate 3 and the circular rubber plate 4 mounted in spaced relationship upon the ends of a tubular spindle 5, the said plates 3 and 4 being rotatably mounted in aligned recesses 6 cut in opposite faces of the rule 2 adjacent one end thereof and the spindle 5 being rotatably mounted in a bore 7 through the rule and connecting the said recesses 6. Spaced apertures 8 are provided in the rule 2 in longitudinal alignment with and spaced from the pivotal element 1.

In the use of the present embodiment of the invention the pivotal element 1 is positioned over any desired center or point and held in place by the finger of the operator, the rubber construction of the circular plate 4 facilitating the holding of the pivotal element upon the proper point, it also being noted that the said rubber plate 4 projects slightly beyond the face of the rule 2 for this same purpose. A suitable marking device (not shown) such as a pencil or chalk is then inserted through one of the apertures 8 and by swinging or rotating the rule 2 upon the said pivotal assembly 1 a circle or arc may be described as will be understood. The tubular construction of the spindle 5 affords a sight aperture facilitating the proper locating of the pivotal element over the line or point. It will be noted that the pivotal element 1 and apertures 8 are positioned in lateral alignment with certain points upon the scale of the rule 2 so that the length of the radius of the arc or circle being described may be known.

In Figures 3 and 4 is shown a modification of the marking device receiving means for the rule, the pivotal element (not shown in this view) being identical with that previously described. In this embodiment the rule is provided with a longitudinally extended slot 9 placed toward that end of the rule opposite to the end in which the pivotal element is mounted. A carrier or slide 10 is provided with grooves 11 in its parallel sides to slidably engage the margins of the slot 9 and the said carrier is also provided with a medial aperture 12 to receive a suitable marking device (not shown).

The use of this embodiment is the same as that set forth for the first embodiment, the carrier 10 being susceptible of movements to different points within the slot 9 to permit the drawing of circles of various sizes.

While I have herein set forth certain preferred embodiments of my invention, it is understood that I may vary from the same in minor details, not departing from the spirit of the invention and within the scope of the appended claim.

I claim:

In a device of the kind described, a rule having aligned circular recesses in its upper and lower faces, with a relatively smaller bore connecting the said recesses through the stock of the rule, a tubular spindle rotatably mounted through the said bore, a circular

metal plate and a circular rubber plate rotatably mounted in the recesses in the upper and lower faces respectively of the rule and secured to the ends of the said tubular spindle.

In testimony whereof I affix my signature.

ARTHUR A. FISCHER.