F. BUCK.

JOINT FOR FOLDING RULES.

APPLICATION FILED AUG. 26, 1918.

1,286,525. Patented Dec. 3, 1918.

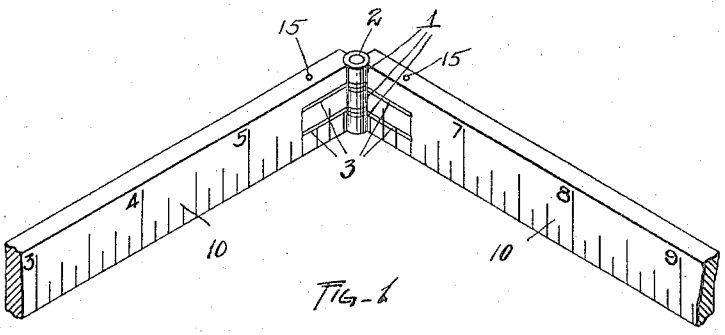


FIG. 1

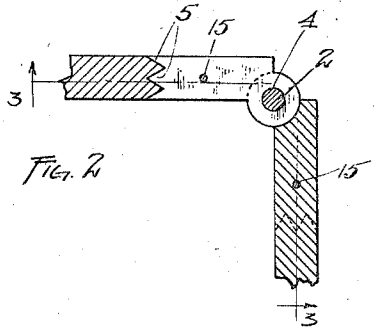


FIG. 2

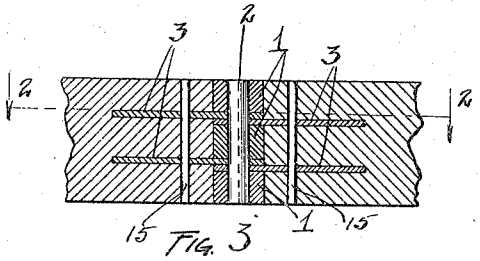


FIG. 3

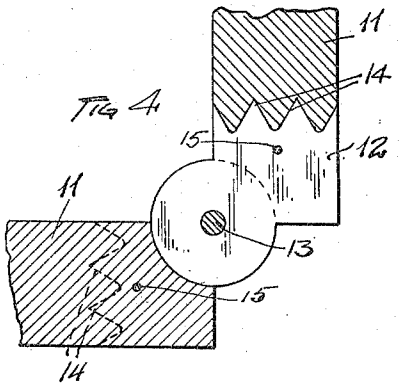


FIG. 4

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JOINT FOR FOLDING RULES.

1,286,525. Specification of Letters Patent. Patented Dec. 3, 1918.

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To all whom it may concern:

Be it known that I, FRED BUCK, a citizen of the United States and a resident of Saginaw, county of Saginaw, and State of Michigan, have invented a new and useful Improvement in Joints for Folding Rules, of which the following is a specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle, so as to distinguish it from other inventions.

The present invention, relating, as indicated, to joints for folding rules, is directed to an improved hinge member for joining two adjacent sections of the folding carpenter's rule which is commonly known as a "boxwood" rule, and which is very generally used. One of the objects of the invention is the provision of a hinge which will be practically self-fastening in the two adjacent sections of the rule, and will require the use of but two of the pins, screws or other parts for maintaining it in place. To the accomplishment of the foregoing and related ends, said invention, then, consists of the means hereinafter fully described and particularly pointed out in the claims.

The annexed drawing and the following description set forth in detail certain mechanism embodying the invention, such disclosed means constituting, however, but one of various mechanical forms in which the principle of the invention may be used.

In said annexed drawings:—

Figure 1 is a perspective view of two adjacent sections of a carpenter's rule assembled with my improved hinge; Fig. 2 is a section on the line 2—2, Fig. 3; Fig. 3 is a section on the line 3—3, Fig. 2; and Fig. 4 is a longitudinal section through the central hinge of a four-section carpenter's rule, showing a slightly different type of hinge for the central sections.

In Fig. 2 I have shown a perspective view of a rule of the folding type, which is partially open to show the hinge between the adjacent section 10. The hinge member consists of a plurality of hollow portions 1, set about, and held together by, a pin 2 provided with two sets of parallel plates 3 extending at right angles to the axis of the member 1, with all of the plates 3 lying in parallel planes. Each member of each pair of these plates 3 is formed at one end with a circular apertured portion 4 extending about the pin 2 between the sections of the member 1, and being snugly held in the member 1 so that the frictional contact of the plates against each other, and against the member 1, is sufficient to maintain the rule in any given position against accidental movement.

The sections or portions of the member 1 are of substantially the same length and the plates 3 held between the sections are inserted under pressure into narrow slots cut into the adjacent ends of two sections of the rule, the thickness of the plates being the same as the width of the slots, so that there is a considerable frictional grip between the sections of the rule and the plates. This grip is made secure by the formation of a series of saw teeth 5 on the end of each of the plates 3. These saw teeth are forced into the wood at the bottom of each of the grooves cut in the rule sections, and I have found that this engagement is sufficiently secure and firm so that it is necessary to drill but two holes transversely of the rule section and of the plates 3 for the insertion of pins 15, while heretofore at least four such pins have been considered essential in holding the adjacent sections in engagement with the hinged members. The elimination of the necessity for drilling two holes at the end of each rule section and the inserting therein of pins, which pass through, not only the wood of the rule, but also the metal of the hinge plates, effects a considerable saving in the cost of manufacturing and assembling this type of rules. Not only are several operations avoided in the making of each rule and the rules are found to be of sufficient strength to withstand the common usage to which they are put.

In Fig. 4 there are shown two central sections 11 of a carpenter's rule, which are provided with longitudinal horizontal slots or recesses therein, into which may be snugly fittted projecting plates 12 pivotally attached to each other by means of a pin 13, and provided with projecting teeth 14 adapted to be inserted and to engage the wood at the bottom of the recess. The holding action of this hinge is similar to the holding action of the hinge shown in the preceding figures, this last hinge being constructed, however, to permit of pivoting of the connected adjacent sections in the plane of the greatest transverse dimension of these

sections instead of in a plane at right angles to these as in the case of hinges of Figs. 1, 2 and 3.

Other modes of applying the principle of my invention may be employed instead of the one explained, change being made as regards the mechanism herein disclosed, provided the means stated by any of the following claims or the equivalent of such stated means be employed.

I therefore particularly point out and distinctly claim as my invention:—

1. In a hinge for rules comprising two pivotally connected members, each being provided with parallel plates adapted to be inserted in slots in the end of a rule section, said plates having sharpened engaging ends.

2. In a hinge for rules comprising two pivotally connected members, each being provided with parallel plates adapted to be inserted in slots in the end of a rule section, said plates being provided with a plurality of sharpened points on their inserted ends.

Signed by me, this 16th day of August, 1918.

FRED BUCK.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."