

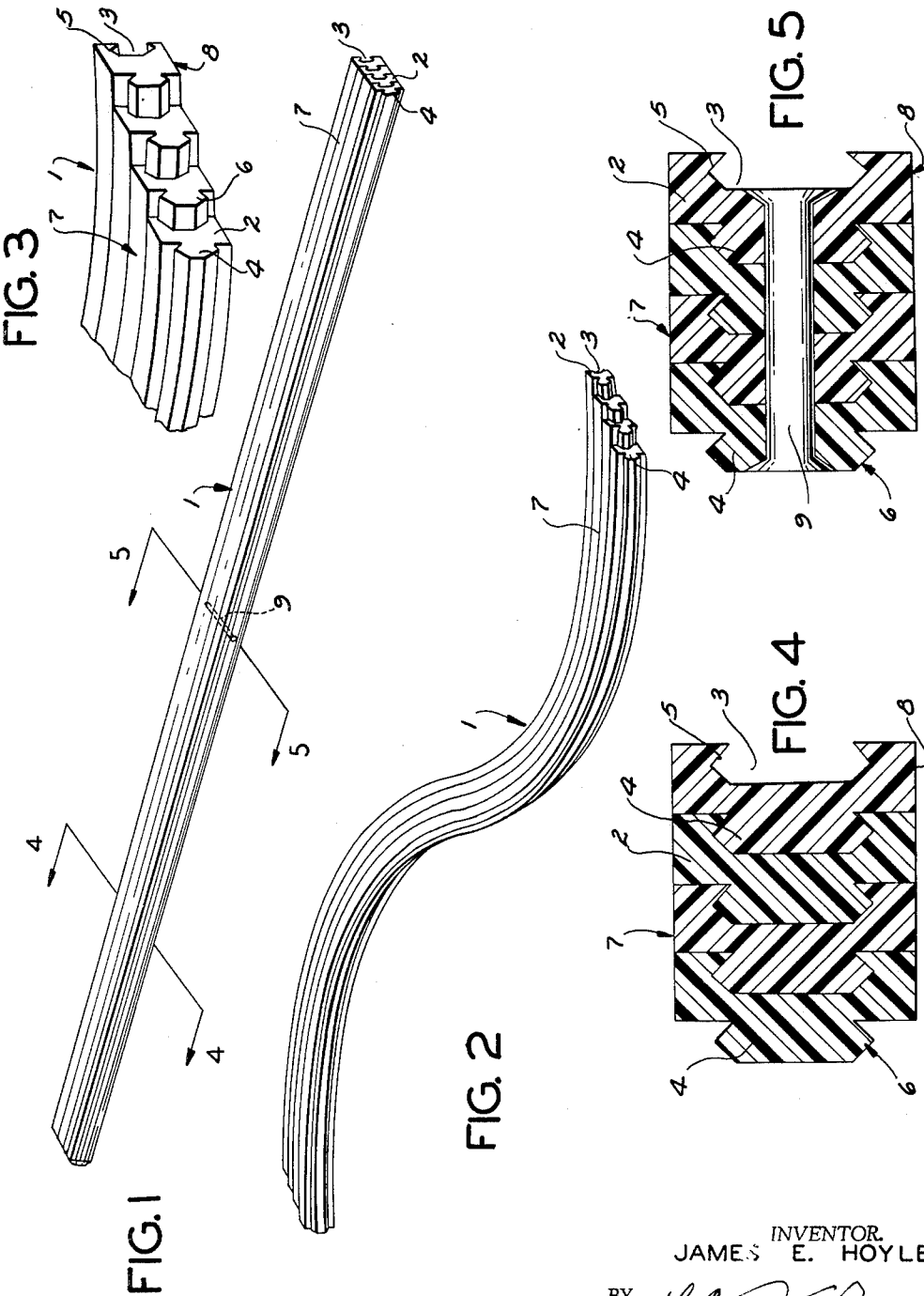
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ADJUSTABLE CURVE FOR DRAFTING

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ADJUSTABLE CURVE FOR DRAFTING

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8 Claims. (Cl. 33-177)

This invention relates to a drawing or drafting instrument used to draw curved lines on paper or metal. More particularly, this invention relates to a drafting curve formed of a flexible or bendable material which can be made to assume a curved shape by hand manipulation of the draftsman. The instrument will retain this desired curve or shape while in use to guide the draftsman's pen or pencil in drawing a line of the desired curvature. Furthermore, the instrument will retain its curved shape until it is again manipulated by hand to change the curve to another configuration.

An object of my invention is to provide an adjustable curve for drafting which can be formed into a curve from which the user may draw curved lines quickly, easily, and accurately.

Another object of my invention is to provide a drafting curve which is simple and economical to manufacture, and which may be sold at a very reasonable price.

Still another object is to provide a curve for drafting which may be used in drawing either with pencil or pen; the curve being provided with one ruling edge especially suited for drawing with a pen, and another ruling edge especially suited for drawing with a pencil.

Still another object of my invention is to provide a drafting curve so constructed that it lends itself to the use of transparent plastic materials which can be molded or extruded so that the instrument may be made transparent, thus preventing adjacent lines from being hidden while the instrument is in use.

Still another object is to provide a novel drafting curve which can be easily and effectively held against the drawing surface, since the curve is provided with adequate flat surfaces for holding the same with either the fingers or by means of weights.

Other objects, advantages and features of my invention may appear from the accompanying drawing, the subjoined detailed description and the appended claims.

In the drawing:

FIGURE 1 is a perspective view of my drafting curve in a straight position.

FIGURE 2 is a perspective view of my drafting curve in one possible curved shape.

FIGURE 3 is an enlarged fragmentary perspective view of one end of my drafting curve.

FIGURE 4 is a transverse sectional view taken on line 4-4 of FIGURE 1.

FIGURE 5 is a sectional view taken on line 5-5 of FIGURE 1.

Referring more particularly to the drawing, my drafting curve 1 consists of a plurality of elongated strips 2 which interengage in a manner to be subsequently described. The strips 2 are all identical in construction and are preferably molded or extruded from a suitable plastic material, such as butyrate or a similar plastic, and the strips may be formed of a transparent plastic so that the draftsman may readily look through the pack or group of strips to observe an adjacent line on the drafting surface. The strips 2 are cut to a suitable length as desired, and are formed with a recess 3 on one side face and a protrusion 4 on the opposite face. The recess or groove 3 is formed with tapered or squared edges 5 and the protrusion or tang 4 is formed with complementary tapered squared edge extensions 6 which fit the grooves or recesses 5. Thus a modified dovetail coupling is provided between adjacent strips to permit the strips to move endwise or lengthwise with relation to each other, but

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are held against disassembly by the modified dovetail connection. Due to a slight taper of the tang or extension 4 this tang will require pressure to force it into the groove 3, and this wedging action of the tapered tang will hold the adjacent strips 2 in their adjusted position, that is, in the curve formed by the user. The protrusion 4 fits the groove 3 with sufficient accuracy and tightness, so that accidental relative movement of adjacent strips is prevented, but hand manipulation will permit the strips to slide with relation to each other and to permit the formation of suitable curves as shown in FIGURE 2. Since the protrusion 4 is spaced from the upper and lower flat faces 7 and 8 of the curve, this protrusion is particularly useful as an inking edge, since the protrusion will be spaced from the drafting surface and will be thus spaced from any wet ink which is placed thereon.

To prevent the strips 2 from accidentally sliding endwise with relation to each other and thus becoming disassembled, I can provide a single pin 9 which extends through all of the assembled strips 2, preferably at the center of the assembled curve. This pin will hold all of the strips 2 against disassembly, but will still permit the curving of the strips on both sides of the pin.

When the drafting curve is formed into the desired shape, the strips 2 are bent by hand as desired, and in so bending the strips will slide with relation to each other to accommodate the deformation caused when forming the instrument into a curve. Once curved or deformed, the various strips will retain their position with relation to the adjacent strips by reason of the frictional resistance of the protrusion or tang 4 in its matching groove 3. From the previous description it follows that the fit between mating sections must be snug but not binding.

As an alternative to the pin 9, I may glue the strips 2 together at one point, or a suitable band may encircle the pack of strips or the assembled curve at one point.

Having described my invention, I claim:

1. A drafting instrument comprising in combination, at least two juxtaposed elongated resilient members inherently biased to relatively straight condition, and interlocking means on said resilient members preventing lateral separation thereof and providing longitudinal frictional forces therebetween throughout their entire lengths for overcoming the inherent bias of said members, whereby said members will remain substantially in any condition of curvature in which they are placed.

2. A drafting instrument comprising in combination, at least two juxtaposed elongated resilient members deformable to any condition of curvature within a given plane but inherently biased to relatively straight condition, and interlocking means on said resilient members effecting engagement thereof and providing spaced frictional surfaces throughout the length of said members affording a bending moment greater than said inherent bias, whereby said members will remain in substantially any condition of curvature in which they are placed.

3. A drafting instrument comprising in combination, at least two juxtaposed elongated resilient members inherently biased to relatively straight condition, interlocking means on said resilient members effecting engagement thereof and providing longitudinal frictional forces therebetween throughout the length of said members greater than said inherent bias, and fastening means interconnecting said resilient members to prevent longitudinal disengagement thereof whereby said members will remain in substantially any condition of curvature in which they are placed.

4. A drafting instrument comprising in combination, a plurality of juxtaposed elongated resilient members inherently biased to relatively straight condition, and interlocking means formed on adjacent surfaces of said members comprising a longitudinal groove in one of said mem-

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bers the length thereof and a complementally formed protrusion the length of the other of said members, said groove and protrusion effecting engagement of said members and affording longitudinal frictional forces therebetween overcoming said bias, whereby said members will remain in substantially any desired condition of curvature in which they are placed.

5. A drafting instrument comprising in combination, at least two juxtaposed elongated resilient members deformable as desired and biased by said resiliency to individual given positions, and interlocking means on said resilient members preventing lateral separation thereof and providing longitudinal frictional forces therebetween throughout their length overcoming the bias of said resiliency, whereby said members will remain in substantially any desired condition of curvature in which they are placed.

6. A drafting instrument comprising in combination, at least two juxtaposed elongated resilient members deformable as desired and biased by said resiliency to individual given positions, interlocking means on said resilient members preventing lateral separation thereof and providing longitudinal frictional forces therebetween throughout their length overcoming the bias of said resiliency, and means interconnecting said resilient members preventing longitudinal separation thereof, whereby said members will remain in substantially any desired condition of curvature in which they are placed.

7. A drafting instrument comprising in combination, at least two juxtaposed elongated resilient members de-

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formable as desired within a given plane and biased by said resiliency to individual given positions, and interlocking means on said resilient members comprising an elongated groove formed in one of said members throughout its length and a complementally formed elongated protrusion on the other of said members throughout its length, said protrusion having firm engagement with said groove to provide therewith frictional forces between and throughout the length of said members overcoming the bias of said resiliency, whereby said members will remain in substantially any desired condition of curvature in which they are placed.

8. A drafting instrument according to claim 7 wherein said groove and protrusion are formed with spaced co-operating frictional surfaces affording a bending moment in said given plane overcoming the bending movement afforded by the bias of said members.

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