

(Model.)

F. W. DAVENPORT.

DRAFTSMAN'S ADJUSTABLE CURVE RULER.

No. 298,834.

Patented May 20, 1884.

Fig. 1

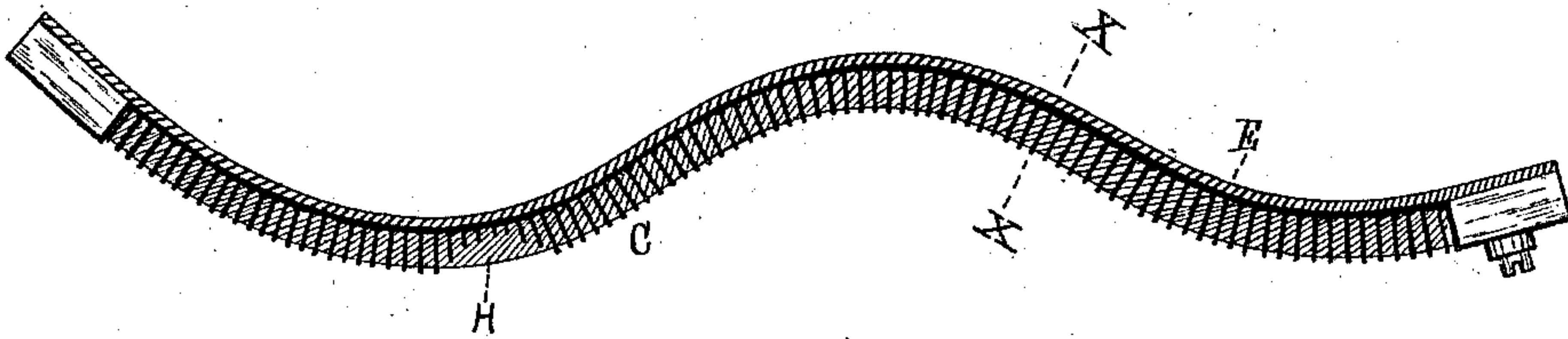


Fig. 2

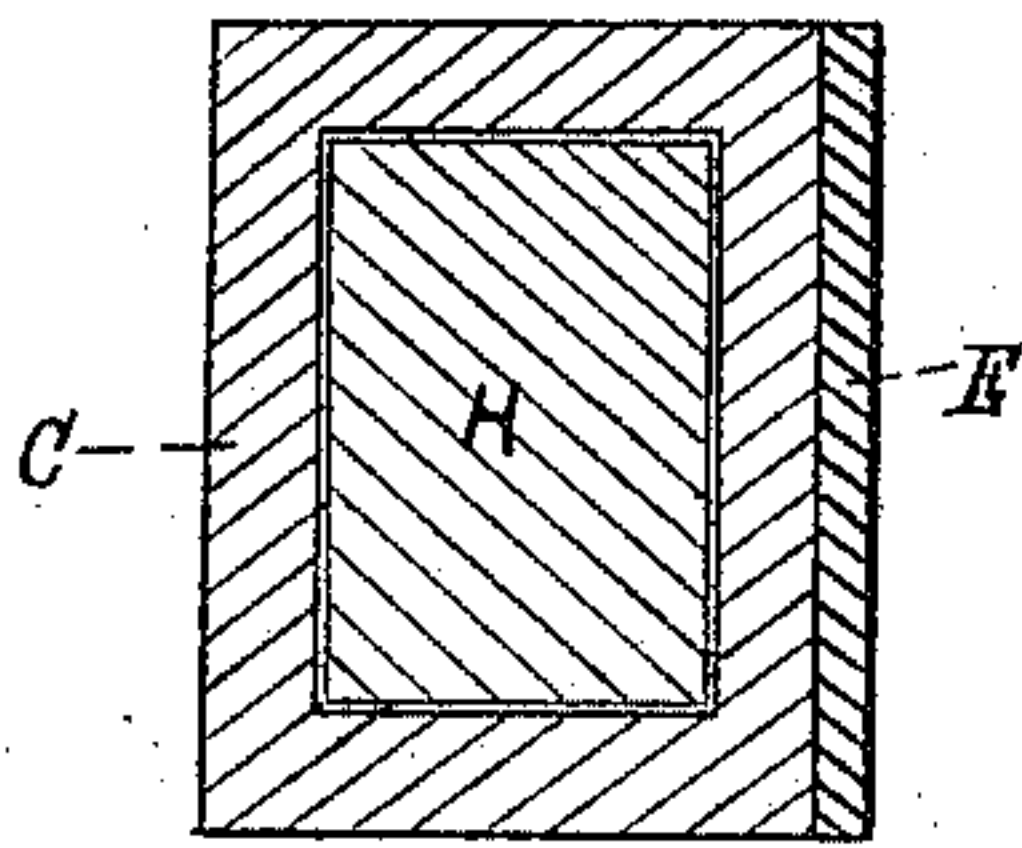


Fig. 3

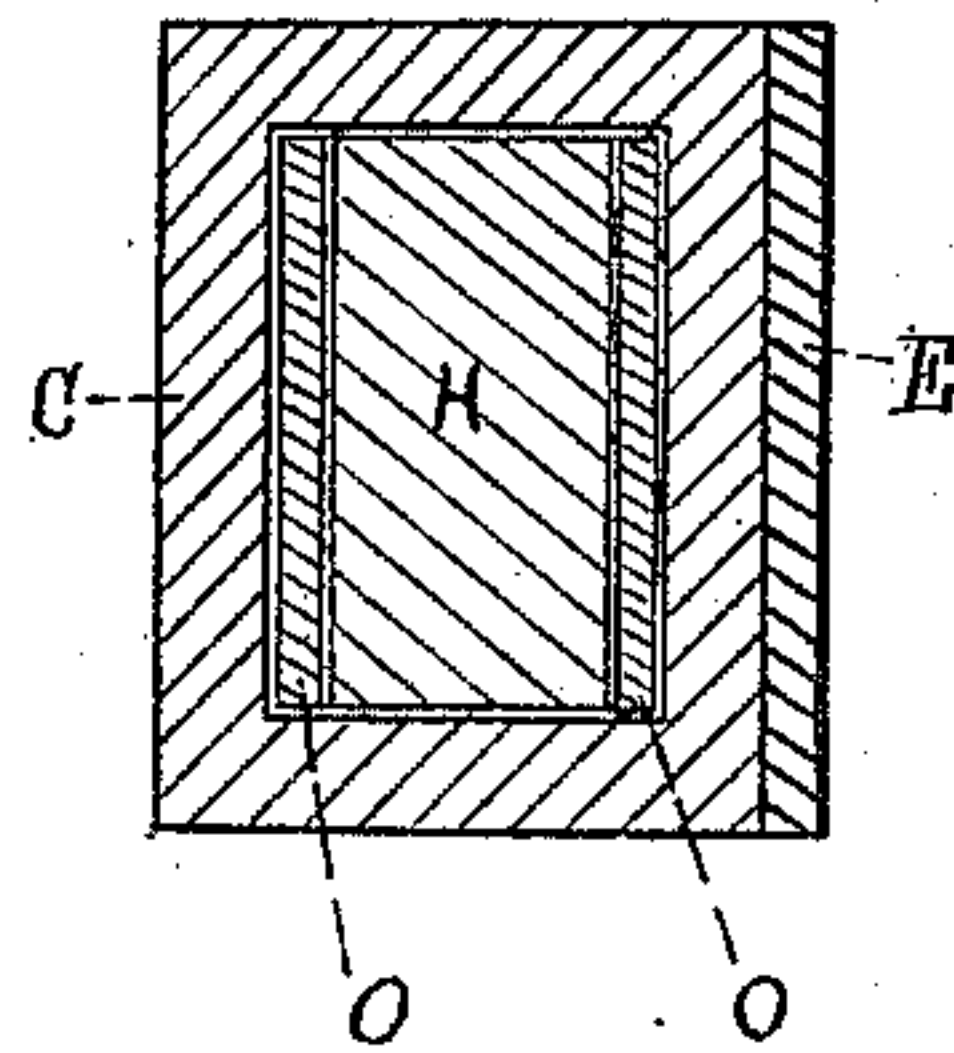
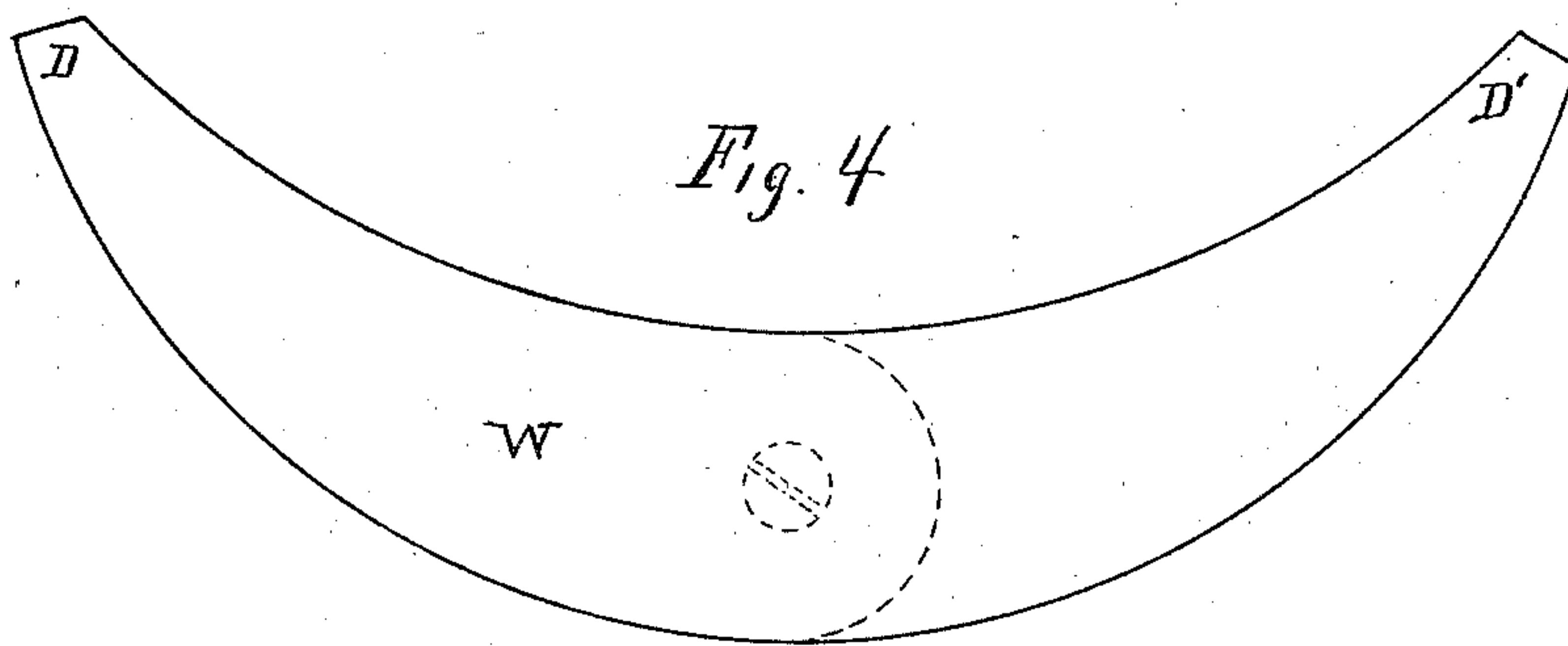


Fig. 4



Witnesses

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DRAFTSMAN'S ADJUSTABLE CURVE-RULER.

SPECIFICATION forming part of Letters Patent No. 298,834, dated May 20, 1884.

Application filed January 19, 1884. (Model.)

To all whom it may concern:

Be it known that I, FRANK W. DAVENPORT, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Draftsmen's Irregular Adjustable Rulers, of which the following is a specification.

This invention relates to a ready means for drawing any form of irregular curved lines with precision. I carry this object into effect by means of a partially flexible ruler, which can be bent and retained in any required position, reference being had to the accompanying drawings, in which—

Figure 1 is a top view. Figs. 2 and 3 are sections taken through the line *xx* of Fig. 1. Fig. 4 is the handle or holder.

The rule proper comprises two principal parts, E and H. (See Figs. 1, 2, and 3.)

E is a face-piece which forms the working-edge of the tool, and is preferably of a somewhat elastic material—that is to say, with more or less tendency to resume a straight form after being bent—as a strip of spring metal, vulcanized rubber, &c.

H is a partially rigid piece, and will retain any form that is given to it. At the same time it can be easily bent, as lead, soft copper, or even a tightly and closely jointed rod. This piece, for the purpose of designation, will be termed the “stiffener.” The strength of the stiffener is sufficient to overcome the tendency of the face-piece to straighten itself.

The two parts may be combined in any manner for producing the result attained by this tool, and I do not confine myself to any one arrangement. A convenient method is to connect a shell or casing to one side of the face-piece and insert the stiffener therein. Said casing can be made from any suitable material, as coiled wire, flexible rubber, &c.

In Figs. 1, 2, and 3, E is a face-piece, C is the casing, and H is the stiffener. The stiffener is made somewhat shorter than the casing, and is fitted loosely enough to slide longitudinally, and thus adjust itself when the rule is bent. After the stiffener is placed in the casing it is preferred to flank it on either side by a strip of thin spring metal, for the purpose of making it slide freely and easily.

The section view, Fig. 3, shows these strips in position at O O. The stiffener with said strips may be retained in the casing by a set-screw carried by one of the ferrules at the ends of the rule, and when the stiffener is worn out it can be replaced by a new one.

W, Fig. 4, is a handle designed mostly for the smaller sizes of rulers, the parts D and D' being connected to the ends of the rule in place of the ferrules before mentioned. This piece may be solid, or it may be pivoted at the center, as shown by dotted lines. Its object is merely to afford a convenient means for holding the tool when in use.

The advantage of using a partially elastic material for the face-piece lies in the fact that its elastic surface will tend to counteract and overcome any minute irregularities that may exist in the stiffener, thus presenting a continuous curved and perfect edge for the pen or pencil.

To use the rule it is simply necessary to adjust it to the outline it is desired to draw.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In an adjustable rule, a strip of flexible and partially spring material—as sheet metal, vulcanized rubber, &c.—combined with a partially-rigid piece—as lead, soft copper, &c.—so as to retain any shape to which it is bent.

2. In an adjustable rule, the combination of the face-piece E and casing C, attached thereto, said casing being adapted to receive a third portion.

3. In an adjustable rule, the combination of the face-piece E, casing C, and stiffener H, arranged substantially as described.

4. In an adjustable rule, the combination of the face-piece E, casing C, stiffener H, and piece W.

5. In an adjustable rule, the combination of the face-piece E, stiffener H, and piece W, arranged and operating substantially as and for the purpose set forth.

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Witnesses:

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