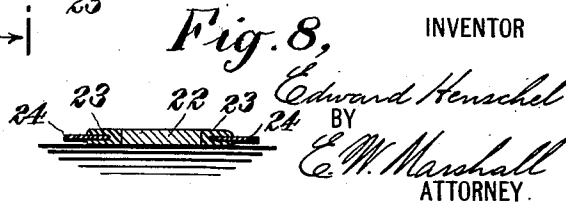
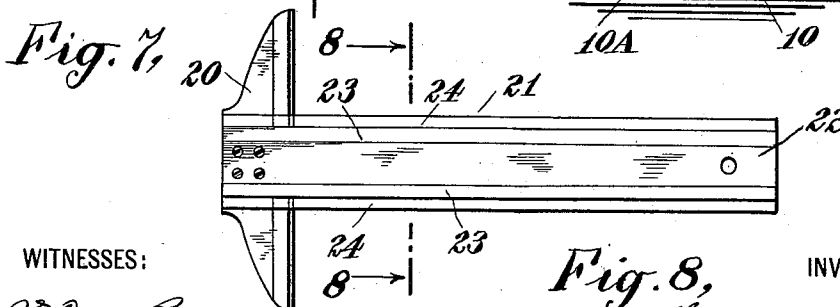
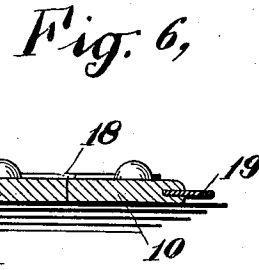
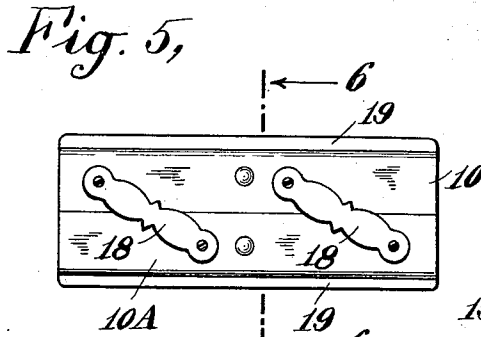
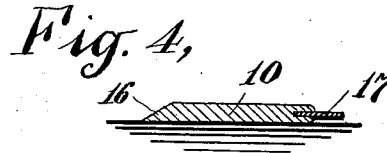
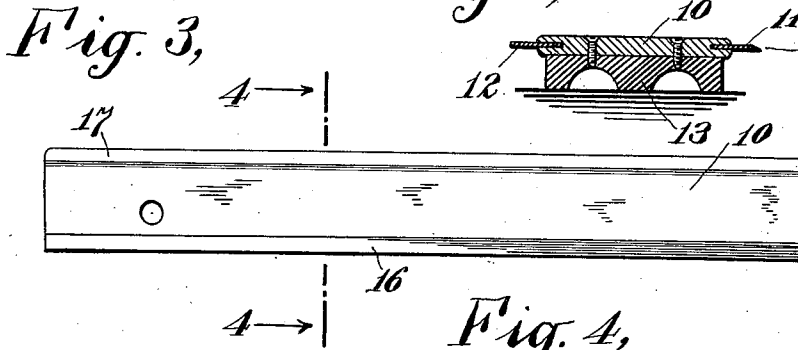
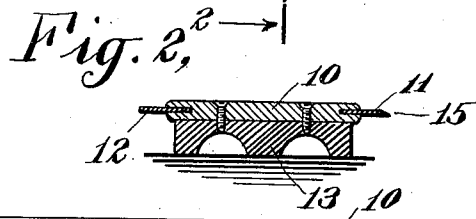
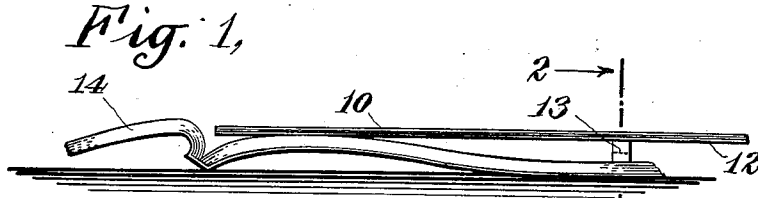


E. HENSCHEL.
 RULER AND DRAWING INSTRUMENT.
 APPLICATION FILED JULY 27, 1909.

1,007,353.

Patented Oct. 31, 1911.



WITNESSES:

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EDWARD HENSCHEL, OF NEW YORK, N. Y., ASSIGNOR TO THE IDEAL VISIBLE RULER COMPANY, OF NEW YORK, N. Y., A CORPORATION.

RULER AND DRAWING INSTRUMENT.

1,007,353.

Specification of Letters Patent. Patented Oct. 31, 1911.

Application filed July 27, 1909. Serial No. 509,938.

To all whom it may concern:

Be it known that I, EDWARD HENSCHEL, a citizen of the United States, and a resident of the borough of Manhattan, in the city, county, and State of New York, United States of America, have invented certain new and useful Improvements in Rulers and Drawing Instruments, of which the following is a specification.

My invention relates to improvements in rulers and other drawing instruments, and its object is to improve upon instruments which are used for ruling straight or curved lines, or for other purposes, with their operative edge or edges constructed in a novel manner, and which has decided advantages over the constructions of such articles which have heretofore been known.

I will describe my invention in the following specification and point out the novel features thereof in the appended claims.

Referring to the drawings, Figure 1 is a side elevation of an improved book ruler made according to my invention, showing the manner in which it is used. Fig. 2 is a sectional end elevation on an enlarged scale of the form of ruler shown in Fig. 1, the section being taken on the line 2—2 of the latter figure. In Figs. 3 and 4 I have shown in plan view and sectional end elevation, respectively, a ruler of ordinary form with one of its straight edges constructed according to my invention. The section shown in Fig. 4 is taken on the line 4—4 of Fig. 3 and is drawn on a somewhat enlarged scale. Fig. 5 is a plan view of a parallel ruler embodying my invention. A sectional end view of this instrument, taken on the line 6—6 of Fig. 5 and drawn on a larger scale, is shown in Fig. 6. A T-square constructed according to my invention is shown in plan view of Fig. 7, and in sectional end elevation on a larger scale in Fig. 8, this section being taken on the line 8—8 of Fig. 7.

Like characters of reference designate corresponding parts in all the figures.

10 designates a solid piece of wood or other desired material of which the body of the ruler or other instrument is formed. In the particular form of my invention which is illustrated in Figs. 1 and 2 a groove has been cut out in each of the longitudinal edges of this ruler preferably located centrally in relation to the thickness of the

body 10, and strips 11 and 12 of transparent or semitransparent flexible material, such as celluloid, have been inserted in these grooves and affixed thereto by means of cement. These strips are of less thickness than that of the body portion 10.

13 designates a transverse bridge which is affixed to one side of the ruler at or near a point midway its length.

Before describing the other figures which illustrate my invention I will point out the uses and advantages of the particular form shown in these first two figures. The transparent strips are centralized in the edges of the body of the ruler and are more securely affixed thereto than in the various constructions heretofore known. The advantage of having the ruling edge transparent has long been recognized. With my improved construction this ruling edge is always raised slightly from the paper or other surface upon which lines are to be made, which fact permits of fine work and entirely obviates a common trouble,—that of causing ink from a pen to adhere to the edge of the ruling surface, or to run under the ruler and thus produce blots. It is also of advantage to have the body proper constructed of a solid piece or of a plurality of strips cemented or glued together to build up a solid body, as such constructions hold their shape and cannot work apart. This has been found to be a source of trouble in such constructions as have a transparent strip screwed or riveted to or between the strips of wood, or glued to the edge thereof. Another advantage of this manner of affixing a transparent strip by embedding it in the groove in a solid body and cementing it therein is that it does not become loosened on account of unequal shrinkage of the two unlike materials, and the strip itself is securely held thereby against curling or warping.

The bridge 13 is of advantage when the ruler is to be used on books. In Fig. 1, 14 designates an open book, and this figure shows the manner in which the bridge is used. It causes the ruler to be tilted so that its inner end may be brought close to the surface to be ruled. Its outer end may be then used as a hand-rest. The bridge may be slipped off from the book when the ruler is to be used on the outer edge of the page and will thus act to steady the ruler. The

latter may be turned over when the ruler is to be used on flat surfaces. One of the edges of the strip 11 is shown beveled at 15. This construction gives a finer edge and may, of course, be applied to the edge or edges of all of the transparent strips shown in the other figures of the drawings.

The ruler shown in Figs. 3 and 4 has one edge of its solid body 10 beveled as at 16 in the usual manner and has a transparent strip 17 set into a central longitudinal groove in its other edge. The outer corners of the transparent strip are preferably rounded as shown.

The parallel ruler shown in Figs. 5 and 6 comprises two solid body portions 10 and 10^a connected together by a pair of links 18. The inner edges of these body portions are preferably at right-angles to their flat sides, but their outer edges may be rounded as shown if desired. Grooves are cut into these outer edges and the transparent strips 19 inserted and cemented therein as in the other instances.

The T-square shown in Figs. 7 and 8 comprises a head 20 to which is affixed the blade 21. The latter is shown as constructed of a central portion 22 of mahogany or maple, with strips of ebony 23 glued to its edges. The three pieces of which the blade is constructed are thus united to form a single body. In the ebony strips grooves are cut for the reception of transparent strips 24.

The advantages of construction and use of these various devices are similar to those set forth in conjunction with the description of the book-ruler. I have shown my invention as applied to several different forms of instruments and, of course, it is applicable as well to others than those illustrated.

What I claim is:—

1. A drawing instrument having a solid body of desired uniform thickness with its edge provided with a longitudinal groove, and a strip of transparent celluloid material thinner than the body set into and cemented in said groove, with its sides parallel with the sides of the body.

2. A ruler having a solid body of desired uniform thickness with its edges each provided with a central longitudinal groove, a strip of transparent celluloid thinner than the body set into and cemented in each of said grooves with the sides of said transparent strips parallel with the sides of the body, and a transverse bridge-piece affixed to one side of said body.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWARD HENSCHEL.

Witnesses:

OTTO HENSCHEL,
ELLA TUCH.