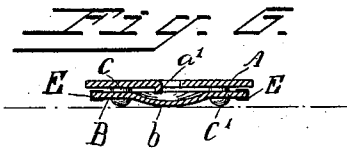
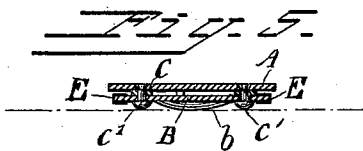
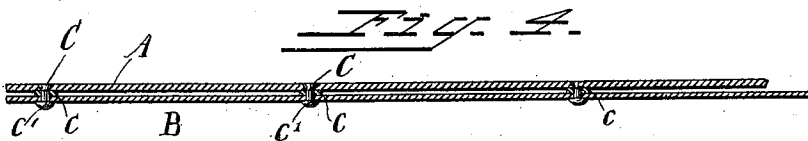
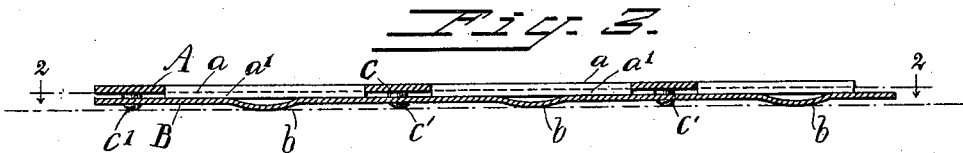
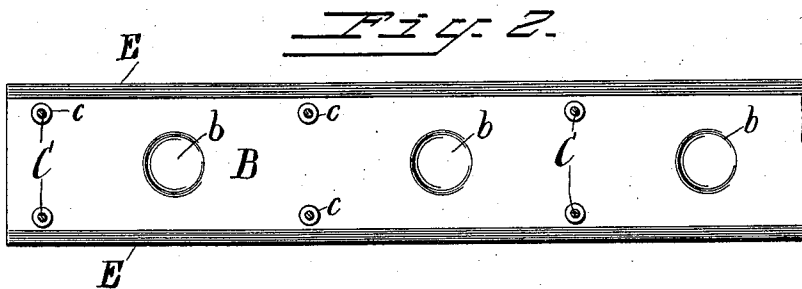
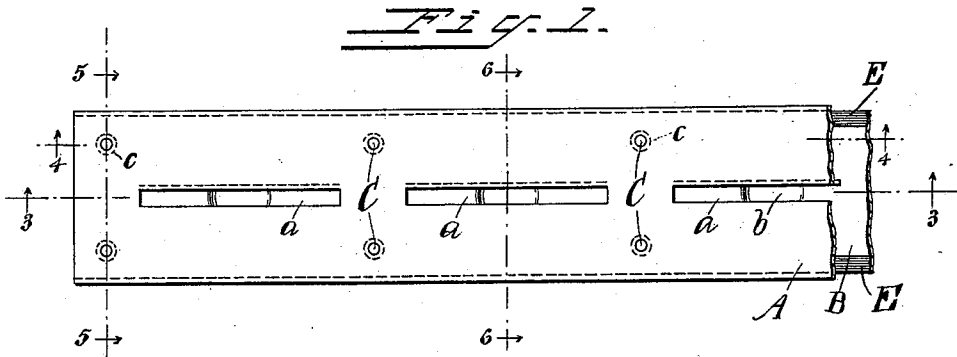


(No Model.)

C. F. WINDISCH.
RULER.

No. 565,319.

Patented Aug. 4, 1896.



WITNESSES:

Henry T. Hirsch.
J. L. McShaffery

INVENTOR

C. F. Windisch.

BY

ATTORNEYS.

UNITED STATES PATENT OFFICE.

CHARLES F. WINDISCH, OF CINCINNATI, OHIO.

RULER.

SPECIFICATION forming part of Letters Patent No. 565,319, dated August 4, 1896.

Application filed March 12, 1896. Serial No. 582,892. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. WINDISCH, of Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and Improved Ruler, of which the following is a full, clear, and exact description.

The object of the invention is to provide a ruler having a novel provision for preventing ink from soiling or blurring the surface being ruled.

The invention consists in the novel construction hereinafter particularly described, and defined in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a broken plan view of a ruler constructed in accordance with my invention. Fig. 2 is a sectional plan view as indicated by line 2 2 in Fig. 3. Fig. 3 is a sectional side view taken on line 3 3 in Fig. 1. Fig. 4 is a similar view on the line 4 4 in Fig. 1. Fig. 5 is a cross-section on line 5 5 in Fig. 1. Fig. 6 is a cross-section on the line 6 6 in Fig. 1. Fig. 7 is a cross-sectional view of a slightly-modified form, and Fig. 8 is a similar view of a further modification.

In manufacturing a ruler in accordance with my invention the same is formed of separate members A and B, of thin material, such as metal, wood, celluloid, rubber, or the like, and these members I secure together in a manner to leave a narrow free space therebetween, as will be clear on inspection of the sectional views. The connection usually is effected by means of rivets C, washers c being preferably placed on the rivets to space the two members of the ruler apart.

The heads c' of the rivets project from the under side and may be utilized for supporting the lower member of the ruler above the surface being ruled, but preferably the lower member has convexities b produced thereon for this purpose by a press or die.

It will be seen from Figs. 1, 5, and 6 that the upper member A is wider than the lower member B and projects at both edges beyond such lower member. By this arrangement any ink adhering to the edges of the ruler will adhere to the upper member only. By

reason of the free space between the members the ink will be drawn by capillary attraction between the members and dry there. Thus the ink will be prevented from reaching the lower surface of the ruler and the surface being ruled. The projecting edge (or edges) of the upper member further contributes to prevent the ink reaching the bottom surface.

In order to still further guard against the ink getting to the under surface, the edges of the lower member are coated with paraffin or an equivalent substance, as at E, which will tend to repel the ink, so that the latter after entering the free space will not in any event tend to flow over such lower edge.

In the upper member I provide openings a, thus reducing the weight of the ruler. The openings also provide holds for engaging one's fingers in manipulating the ruler.

Along the openings, at the inner surface, I preferably form projecting ribs or flanges a', which give strength to the ruler and serve also to space the members or aid in spacing them.

In Fig. 7 a ruler is shown without the slots a, in lieu of which a single corrugation a³ is shown. This serves the twofold purpose of strengthening the ruler and also of spacing the members A B or aiding with the washers c in spacing the members.

In Fig. 8 two corrugations a⁴ are shown for a like purpose.

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

1. As a new article of manufacture, a ruler composed of two members with a space between, a side edge of the lower member having a coating of paraffin or the like, substantially as described.

2. As a new article of manufacture, a ruler composed of an upper and a lower member held together, one of said members having openings, and ribs at said openings, the ribs projecting inward toward the other member, substantially as described.

3. A ruler having two flat sections, one section having an integral edge portion bent toward the second section so as to engage the same and a fastening device passing through

the two sections and holding the said integral portion in engagement with the said second section, substantially as described.

4. A ruler having a ruling edge and having
5 a portion arranged to lie between the ruling edge and the surface on which the ruler rests, such portion being provided with a coating

of wax-like substance, substantially as described.

CHARLES F. WINDISCH.

Witnesses:

JOSEPH UHL,

FRED P. MUHLHAUSER.