

G. D. WYCKOFF.
 RULER AND PROTRACTOR.

No. 181,236.

Patented Aug. 15, 1876.

Fig. 1.

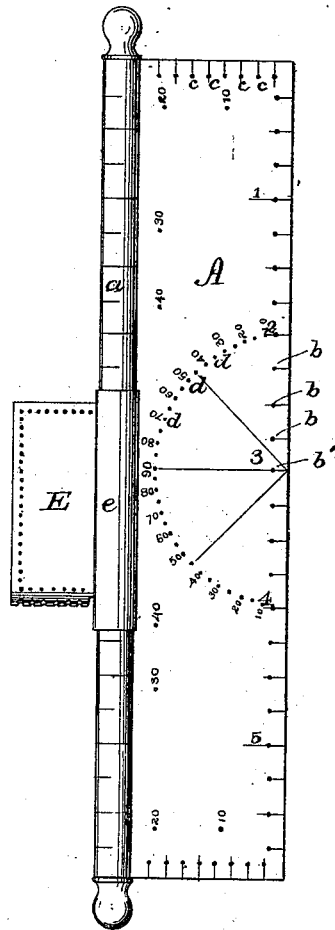
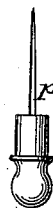


Fig. 2.



Fig. 3.



Attest:

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Inventor:

Geo. D. Wyckoff
 By his atty
 R. D. O. Smith

UNITED STATES PATENT OFFICE.

GEORGE D. WYCKOFF, OF INDIANAPOLIS, INDIANA, ASSIGNOR OF ONE-HALF HIS RIGHT TO HENRY EITEL, OF SAME PLACE.

IMPROVEMENT IN RULERS AND PROTRACTORS.

Specification forming part of Letters Patent No. 181,236, dated August 15, 1876; application filed March 15, 1876.

To all whom it may concern:

Be it known that I, GEO. D. WYCKOFF, of Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Improvement in Rulers, of which the following is a full and correct description, having reference to the accompanying drawing, wherein—

Figure 1 represents my invention in plan, and Figs. 2 and 3 certain details for use therewith.

This ruler is adapted to the wants of accountants, draftsmen, surveyors, and scholars generally. It affords a correct measure of length and of angles, and with its aid geometrical and circular figures may be readily inscribed. It is also useful as a paper-cutter and for ruling lines with the common pen, and is devoid of parts liable to derangement.

The blade A of my ruler is flat, about two inches wide, and may be of any convenient length. Along the rear edge the metal of the blade A is rolled up to form a cylindrical edge, *a*, which serves as a handle for the convenient manipulation of the implement; also as a pen-ruler and as a guide for the perpendicular line attachment E. The front edge may be turned down slightly for the purpose of stiffening the blade, and also to bring said edge more sharply and forcibly down upon the line to be measured, or the paper to be torn off, when it is employed as a paper-cutter. The front edge of the blade A is divided, so as to present any common scale, or any combination of scales, that may be desired. The round edge *a* is also subdivided, and its scale-lines are exactly in line with the subdivisions upon the front edge. A row of equidistant perforations, *b*, along the front edge of the blade A, makes it easy to point off with a pencil or prick-point any number of spaces; or a more important use is in the inscription of circles, a sharp prick-point being inserted in any one of said holes as a center, and a pencil-point in another of said holes, at the radial distance, to inscribe the circular line by carry-

ing the whole implement around the center. A similar series of perforations, *c*, along the end edges afford a ready means of marking off the equidistant points for parallel lining. The medial perforation *b'* is made the center of a circular row of perforations, *d*, equidistant and indicating angles, and thereby it constitutes a protractor.

It is frequently necessary in drafting or plotting to set off perpendicular lines, and for the purpose of doing so conveniently and accurately I provide the attachment E, which has at one end a cylindric extension, *e*, which fits over and slides freely upon the cylindrical edge *a* as a guide. The front and back edges of the attachment E are parallel and at right angles to the guide *e*. Said edges, as well as the end edge of said attachment, are graduated, so that it is easy, not only to project lines perpendicular to the edge of the blade A, but to set off distances upon said lines also.

The cylinder *a*, besides being a handle to assist in the manipulations of the implement, serves also as a case for those instruments which it is desirable should accompany the ruler—that is to say, in one end may be inserted a plug bearing a prick-point, *p*, and in the other end may be a plug bearing a pen or pencil, *q*.

Having described my invention, what I claim as new is—

1. A ruler, A, constructed with a graduated edge and a cylindrical edge, *a*, having also graduations, and provided with the perforations *b c*, combined with the angle, perforations *d d*, to form a combined rule or scale and protractor.

2. Combined with the rule A, constructed with graduations and perforations *b c d*, the perpendicular line attachment E, as set forth.

GEO. D. WYCKOFF.

Witnesses:

F. C. WYCKOFF,
WALTER McCOLLUM.