

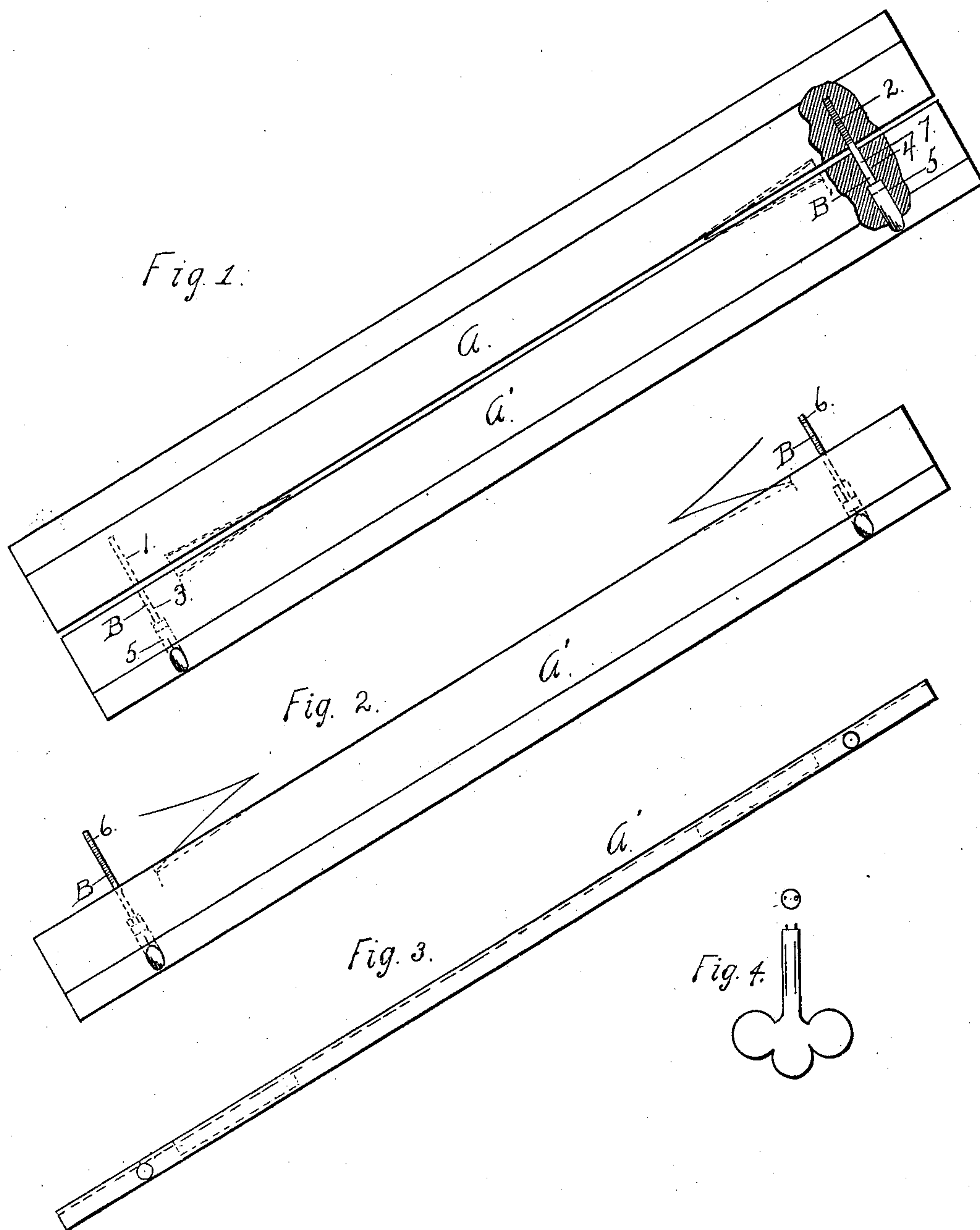
(No Model.)

2 Sheets—Sheet 1.

W. S. HEATH.
PARALLEL RULER.

No. 544,787.

Patented Aug. 20, 1895.



WITNESSES
A. G. Kuyfman
Geo. W. Kern

INVENTOR
Wm. S. Heath
by *A. G. Kuyfman*
Attorney.

(No Model.)

2 Sheets—Sheet 2.

W. S. HEATH.
PARALLEL RULER.

No. 544,787.

Patented Aug. 20, 1895.

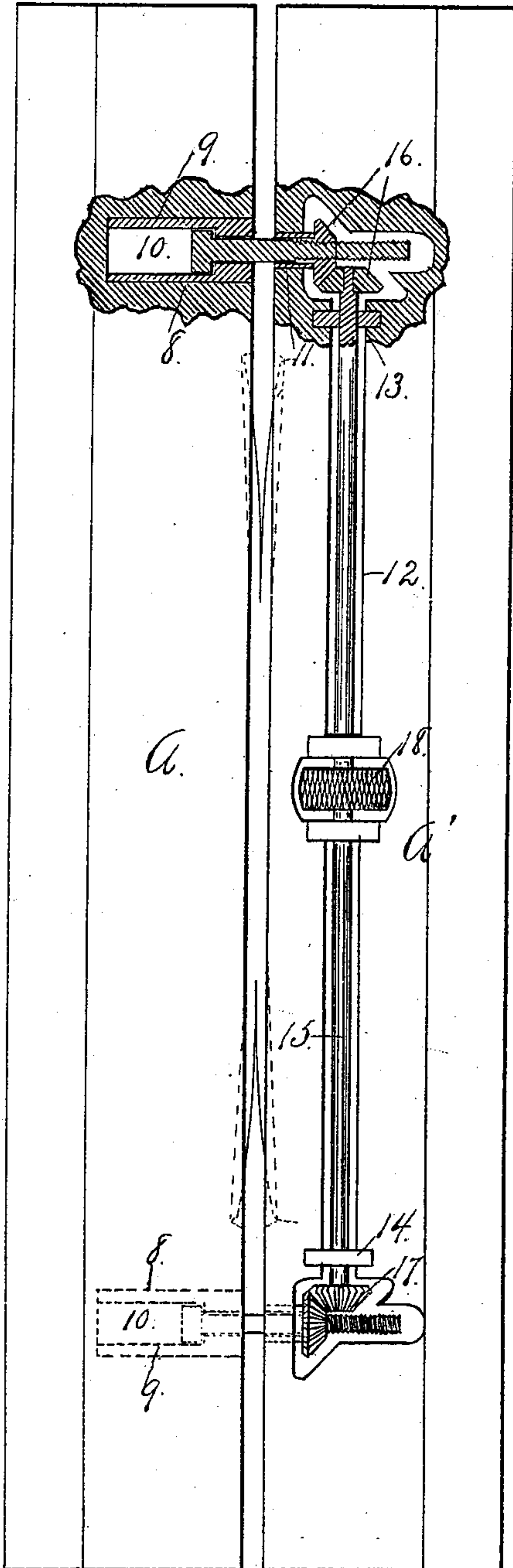


Fig. 5.

WITNESSES
Chas. S. Heath
Geo. W. Kern

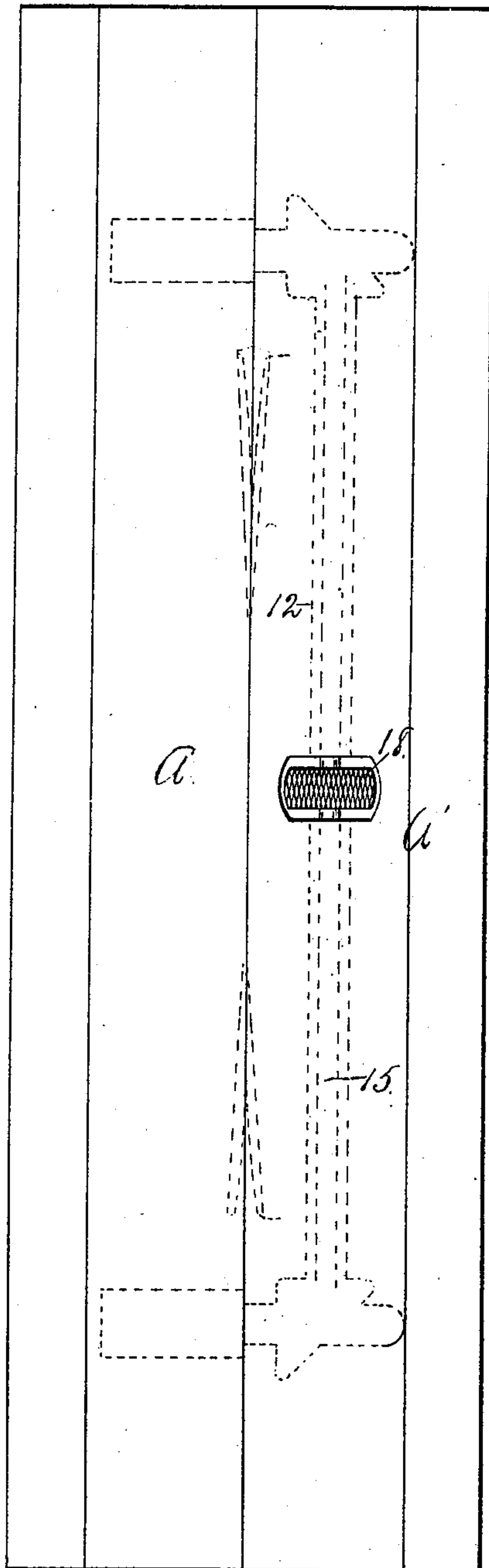


Fig. 6.

INVENTOR
Wm. S. Heath
by *A. G. Huffman* Attorney

UNITED STATES PATENT OFFICE.

WILLIAM S. HEATH, OF WASHINGTON, DISTRICT OF COLUMBIA.

PARALLEL-RULER.

SPECIFICATION forming part of Letters Patent No. 544,787, dated August 20, 1895.

Application filed December 29, 1894. Serial No. 533,326. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. HEATH, a citizen of the United States of America, residing in the city of Washington, in the District of Columbia, have invented a new and useful Parallel and Section Line Ruler, of which the following is a specification.

My invention has relation to improvements in rulers of that class particularly adapted for making parallel lines; and the object is to provide such an implement of simple construction, which may readily and accurately be adjusted to determine the uniform position of parallel lines or section-lines.

I have fully and clearly illustrated my invention in the accompanying drawings, wherein—

Figure 1 is a plan view of my improved ruler in its simpler construction. Fig. 2 is a plan view of the gage part. Fig. 3 is an inner edge view of the ruler. Fig. 4 shows details of the head of one of the adjusting-screws and the key for turning the screws. Fig. 5 is a plan view of the ruler, partly in section, provided with means of adjustment, the ruler being pressed open or apart by the springs. Fig. 6 is a plan view showing the ruler closed and the adjusting means indicated in dotted lines.

A A' designate the parts, bars, or straight-edges constituting the ruler. Both of the rulers may be beveled on the outer edge, so that either may be used for the purpose intended. In one of the parts of the ruler are made threaded sockets 1 2, and in the other are formed unthreaded holes 3 4, enlarged at their outer portions, as at 5, to take the head of the adjusting-screws.

B B' designate the adjusting-screws, having their threaded portions 6 taking in the threaded sockets 1 and 2 and their smooth shanks 7 adapted to slide in the unthreaded holes of the outer portion of the ruler. The ways for the heads of the screws are let into the ruler far enough to permit the requisite movements of the adjusting-screws therein. The screws, when used as in Fig. 1, have round heads with sockets formed therein to take the pins in a turning-key, as shown in Fig. 4 of the drawings. It will be perceived by the foregoing that the adjustments are made by

simply turning the screws the desired distance inward or outward, as may be necessary.

Between the parts composing the ruler are seated light V-shaped springs, which press the parts away from each other, or the rear part away from the other when the latter has been drawn back a determined distance and held by the pressure of the fingers down on the surface to be ruled.

In Figs. 5 and 6 of the drawings I have illustrated the adjusting-screws as provided with adjusting-nuts having bevel-gear cut on them, engaged by bevel-gear on a shaft or bar arranged in the ruler. Referring to these figures of the drawings, 8 designates sockets cut transversely across one part of the ruler, and in these are fitted tubes 9, a part, as 10, of the opening in the tube being made angular to take and hold the head of the adjusting-screw against turning in the socket and the other portion fitting the shank of the screw. In the other part of the ruler are fitted sleeves 11, through which the adjusting-screws freely pass into the sockets. The nuts on the screws are beveled on their edges and provided with gear-teeth, as shown. In this part of the ruler is a slot or groove 12, having bearings 13 14 fixed therein, and in these bearings is journaled a rod 15, carrying on its ends bevel-gears 16 17, which mesh with the adjusting-nuts on the screws. The rod 15 is turned by a thumb-nut 18, set thereon, substantially as shown in the drawings. It will be perceived that by turning the rod 15 the adjusting-nuts on the screws will be also turned and the space adjustment thus be accurately made.

The operative use of the ruler is similar to that wherein the screws are adjusted in the ruler, as in Fig. 1, and consists simply in arranging the line-edge of the ruler to the position where the line is to be drawn, then bearing down, and, the line being made, the rear part of the ruler is drawn back the distance permitted by the adjustments and held in such position, while the other part is drawn back against its inner edge. The lines are thus all made parallel and of equal distance apart.

The thumb-nut may have space-graduations marked thereon and the turning-key be marked with lines to indicate the turns made.

What I claim, and desire to secure by Letters Patent, is—

1. The parallel ruler, composed of two parts having parallel edges, one of the parts having threaded sockets therein and the other part having unthreaded shouldered holes through it registering with the threaded-sockets of the other part, and adjusting-screws having their heads and shanks arranged in the unthreaded holes of the one part and their threaded portions taking in the threaded sockets of the other part, whereby the one part may be adjusted and moved to and from the other, substantially as and for the purpose specified.

2. The parallel ruler composed of two parts having parallel edges, one of the parts having threaded sockets therein, and the other part having unthreaded shouldered holes through it registering with the threaded sockets of the other part, adjusting screws having their heads and shanks arranged in the un-

threaded holes of the one part and their threaded portions taking in the threaded sockets of the other part, and V-shaped springs seated between the parts to press them away from each other, substantially as and for the purpose specified.

3. A parallel ruler composed of two parts, adjusting-screws loosely projected through one part into the other, nuts on the screws formed with beveled gear, a bar journaled in one of the parts having a thumb piece, and carrying bevel gears on each end to mesh with the beveled gear-nuts on the screws, substantially as and for the purpose specified.

In witness whereof I have hereto set my hand in the presence of two attesting witnesses.

WILLIAM S. HEATH.

Attest:

C. G. HEYLMUN,
GEO. W. KERR.