No. 763,211. PATENTED JUNE 21, 1904.

E. B. SHEPARDSON.

GAGE.

APPLICATION FILED JAN. 21, 1904.

NO MODEL.

Fig. 1.

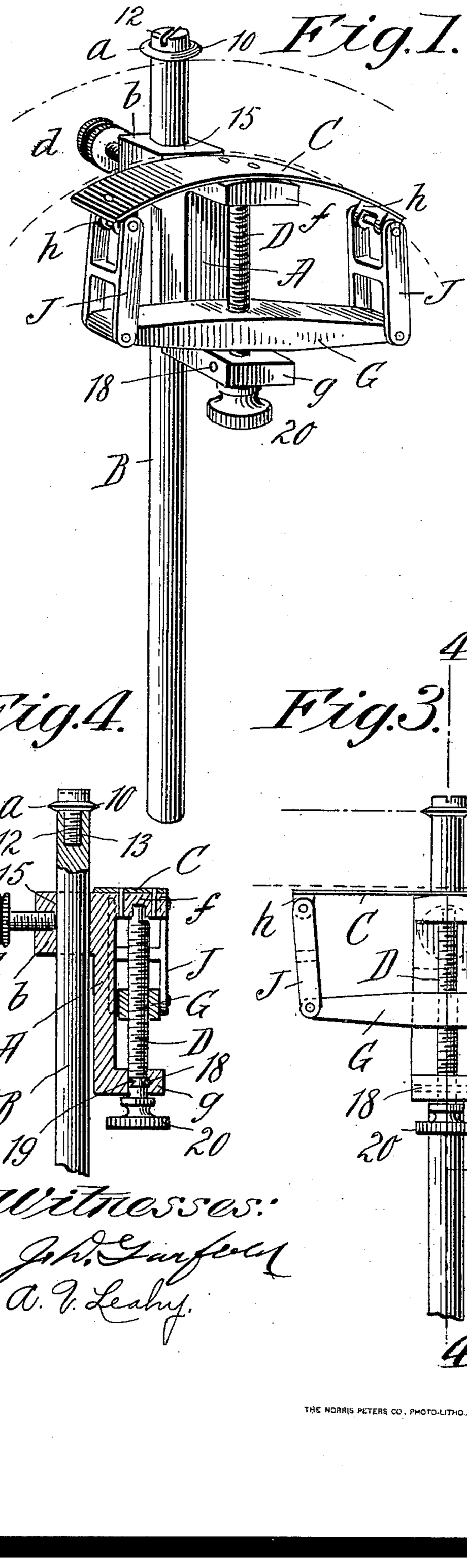

Fig. 2.

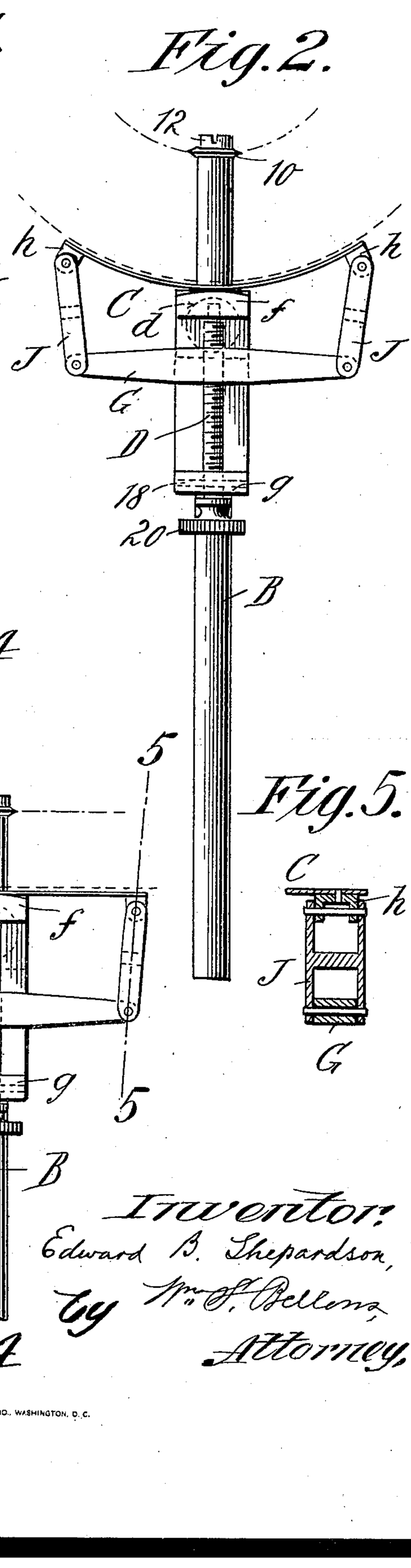

Fig. 4.

Fig. 3.

Fig. 5.

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UNITED STATES PATENT OFFICE.

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GAGE.

SPECIFICATION forming part of Letters Patent No. 763,211, dated June 21, 1904.

Application filed January 21, 1904. Serial No. 189,960. (No model.)

To all whom it may concern:

Be it known that I, EDWARD B. SHEPARDSON, a citizen of the United States of America, and a resident of Greenfield, in the county of Franklin and State of Massachusetts, have invented certain new and useful Improvements in Gages, of which the following is a full, clear, and exact description.

This invention relates to improvements in marking-gages, and has for its object to provide a gage for marking either straight or curvilinear, accordingly as the guiding-face of the gage-head is moved along and in contact with the margin of a straight or a convex or a concave part.

The present improved gage is susceptible of having the surface of the guiding-head thereof maintained either straight and plane or in an arc line which at will is convex or concave.

The invention furthermore consists in constructions, combinations, and arrangements of parts, all substantially as hereinafter fully described, and set forth in the claims.

In the accompanying drawings, Figure 1 is a perspective view of the gage shown as adjusted or set for guidance against a concave surface and for marking in a curved line parallel with such surface. Fig. 2 is a face view of the gage set for being operated in conjunction with a convex guiding-surface. Fig. 3 is a view substantially similar to Fig. 2, but showing the gage as set for rectilinear gage guiding and marking. Fig. 4 is a longitudinal sectional view as taken on line 4 4, Fig. 3. Fig. 5 is a sectional view of parts in detail as taken on the line 5 5, Fig. 3.

Similar characters of reference indicate corresponding parts in all of the views.

In the drawings, A represents the gage head or stock, and B the gage-bar, which at the end thereof has a marker *a*, the marker in the present instance consisting of a flange-like circular part 10, associated with which is a screw 12, the shank of which has a thread engagement in a longitudinally-extending hole 13 in the extremity of the gage-bar. The head A comprises at its upper or outer end a rearwardly-offset lug or projection *b*, provided with a longitudinally-extending aperture 15, through which the gage-bar has a sliding fit, the thumb-screw *d* holding the gage-bar in any given set or adjusted position relatively to the head. The head also has at its upper and lower ends the forwardly-projecting lugs *f* and *g*, the upper lug having a flexible strip C, riveted or otherwise secured thereto at the intermediate portion thereof, said strip having at its extremities the depending ear-lugs *h h*, formed on or secured thereto in any practicable manner.

A screw D is arranged parallel with the marking-bar and the longitudinal line of the head A, said screw having bearings for rotation in the aforementioned upper and lower lugs *f* and *g*, said screw being constrained against endwise movement relatively to the head by any suitable means, the means here shown consisting of the pin 18, penetrating lug *g* in a direction at right angles to the axis of the screw and engaging in a parallel groove 19 in the screw, as indicated in Fig. 4. The screw is provided with the knurled head 20 for convenience in turning it either to the right or left, as may be desired.

A bar G has at the middle portion thereof, which is divided with the screw-threaded aperture therethrough, an engagement with the screw D, the extremities of said bar being located below and more or less nearly parallel with the extremities of the flexible strip C, and the extremities of said bar are pivotally connected by the links or link-frames J to the extremities of the flexible strip C, the connection with the latter being by riveted pivots through the end portions of the links and through the ear-lug equipments at the under side of the strip ends.

Thin strip metal is considered the most desirable material to employ to constitute the guiding-face of the gage, although, of course, other material—such as leather, hard rubber, wood, &c.—might be substituted.

While the gage is to be used for marking on a line parallel with the straight guiding-surface on the part being worked upon, the parts are by the turning of the screw adjusted to the relations shown in Fig. 3, wherein the location of the bar G about midway between the lugs *f*

and *g* causes, through the link connections, the guiding-face strip C to be maintained with a straight surface.

By turning the screw to the right, so that the bar G is lowered more or less, the strip is caused to present a convex gage-guiding surface, as represented in Fig. 1, while a turning of the screw to the left causing the bar G to have an elevated position the flexible strip will present a convex gage-guiding surface, as represented in Fig. 2.

Changes in the details of construction of the device may be made with considerable latitude without departing from the essentials of the present invention.

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

1. A marking-gage consisting of a gage-bar having a marker, and a head, relatively to which the bar is lengthwise adjustable, a flexible metallic strip secured at its intermediate portion to the end of said head, a screw rotatably supported by the head, a bar engaged, and to be moved, by the screw, and links connecting the ends of the bar and the ends of the flexible strip.

2. A marking-gage consisting of a gage-bar having a marker, and a head, relatively to which the bar is lengthwise adjustable, which head is provided near one end with a lug, a flexible metallic strip secured to said lug, a screw rotatably supported by the head, and constrained against movement endwise relatively thereto, a bar engaged, and to be moved by the screw, and links connecting the ends of the bar and the ends of the flexible strip.

3. A marking-gage consisting of a gage-bar having a marker, and a head, relatively to which the bar is lengthwise adjustable, which head is provided at one end with an offset lug, a flexible metallic strip secured at its middle portion to said lug and provided with depending ear-lugs at its extremities, a screw rotatably supported by the head, a bar engaged and to be moved by the turning of the screw, and links pivotally connected to the ends of the bar and to the said ear-lugs of the flexible strip.

4. In a marking-gage, in combination, a head provided with an apertured lug projected from its rear side, and lugs projected from its front side at the end portions thereof, a flexible strip secured by its middle portion to the upper front lug, a screw having a supporting engagement for rotation with said front lugs, and constrained against endwise motion, a bar having its middle portion in engagement with said screw, links connecting the ends of the bar and the ends of the flexible strip, and the gage-bar adjustable through said apertured lug having a marker, and means for confining it in its adjusted position relatively to the head.

Signed by me at Springfield, Massachusetts, in presence of two subscribing witnesses.

EDWARD B. SHEPARDSON.

Witnesses:
A. V. LEAHY,
WM. S. BELLOWS.