

No. 663,645.

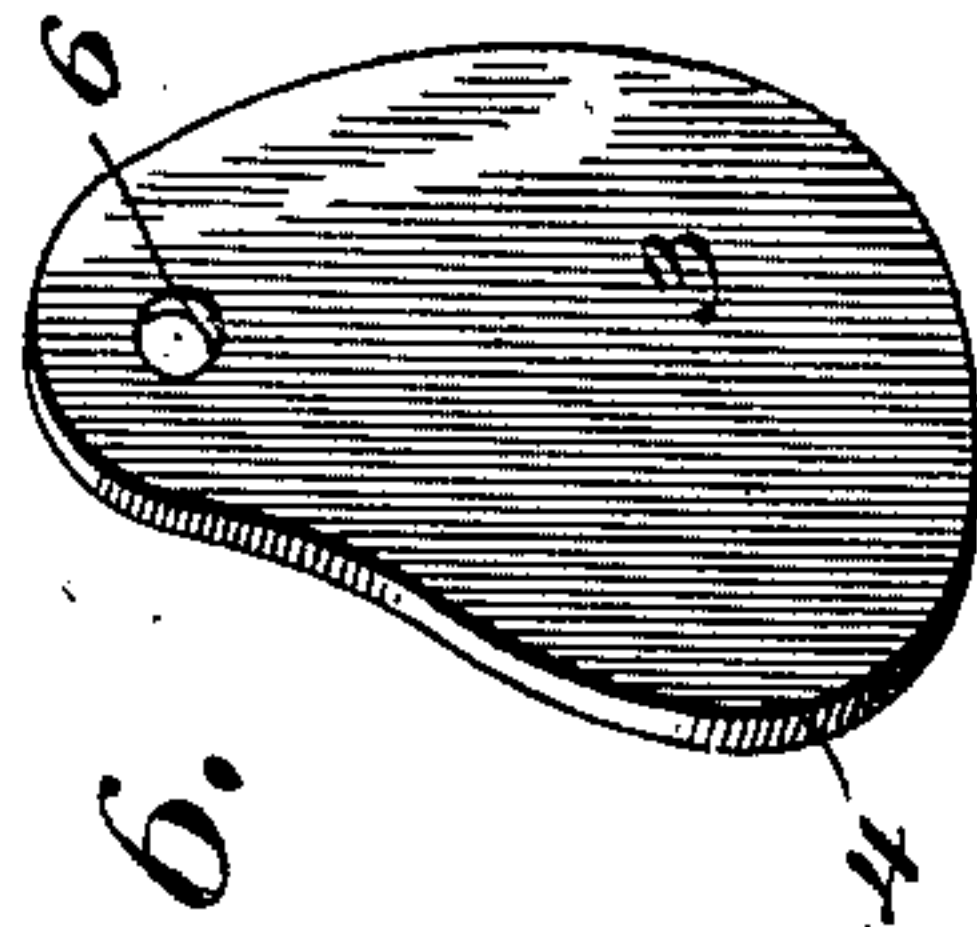
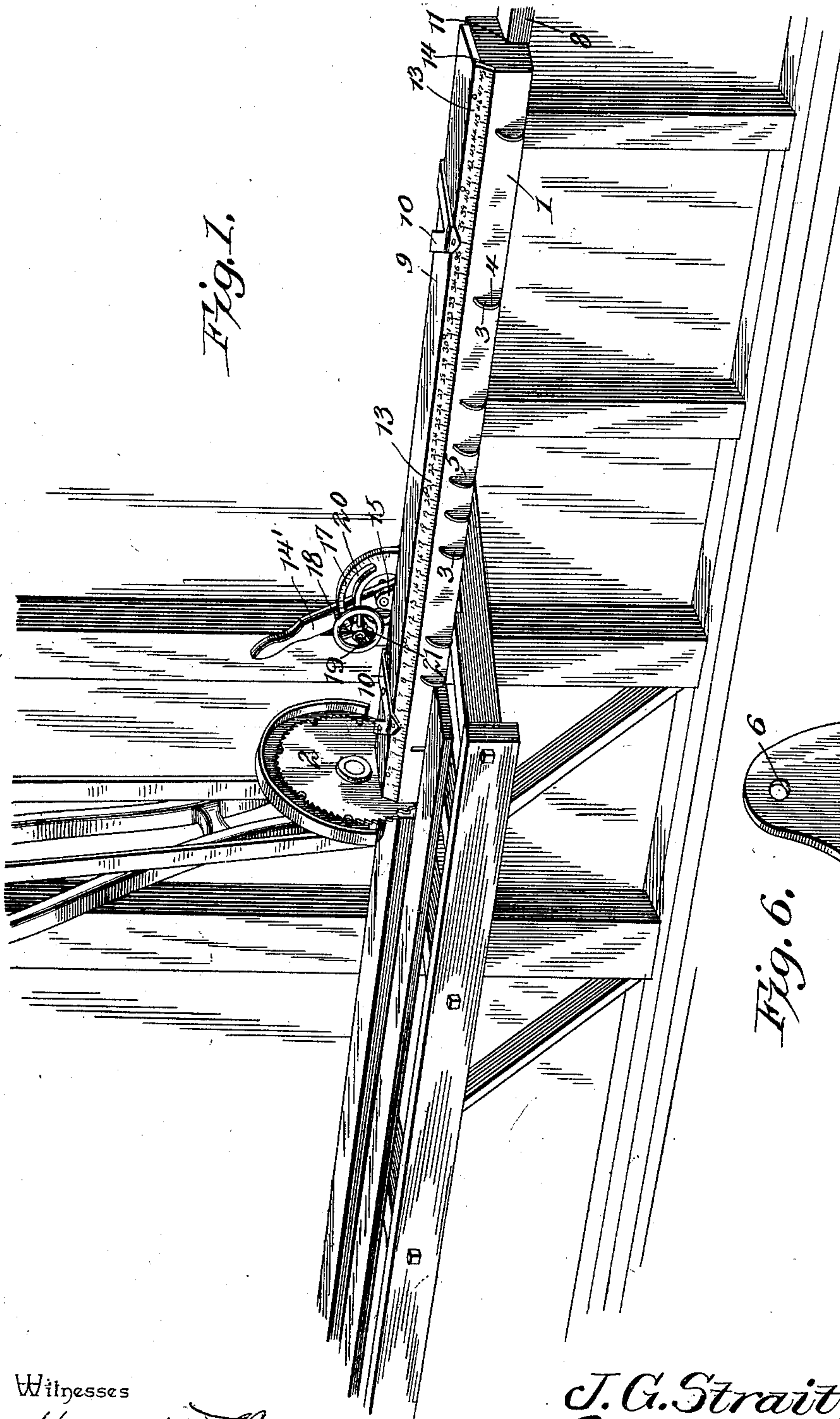
Patented Dec. 11, 1900.

J. G. STRAIT.
GAGE FOR SAWING MACHINES.

(Application filed Sept. 1, 1900.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses

Howard D. Orr
St. J. Riley

J. G. Strait, Inventor.

by

Chas. Snow & Co.
Attorneys

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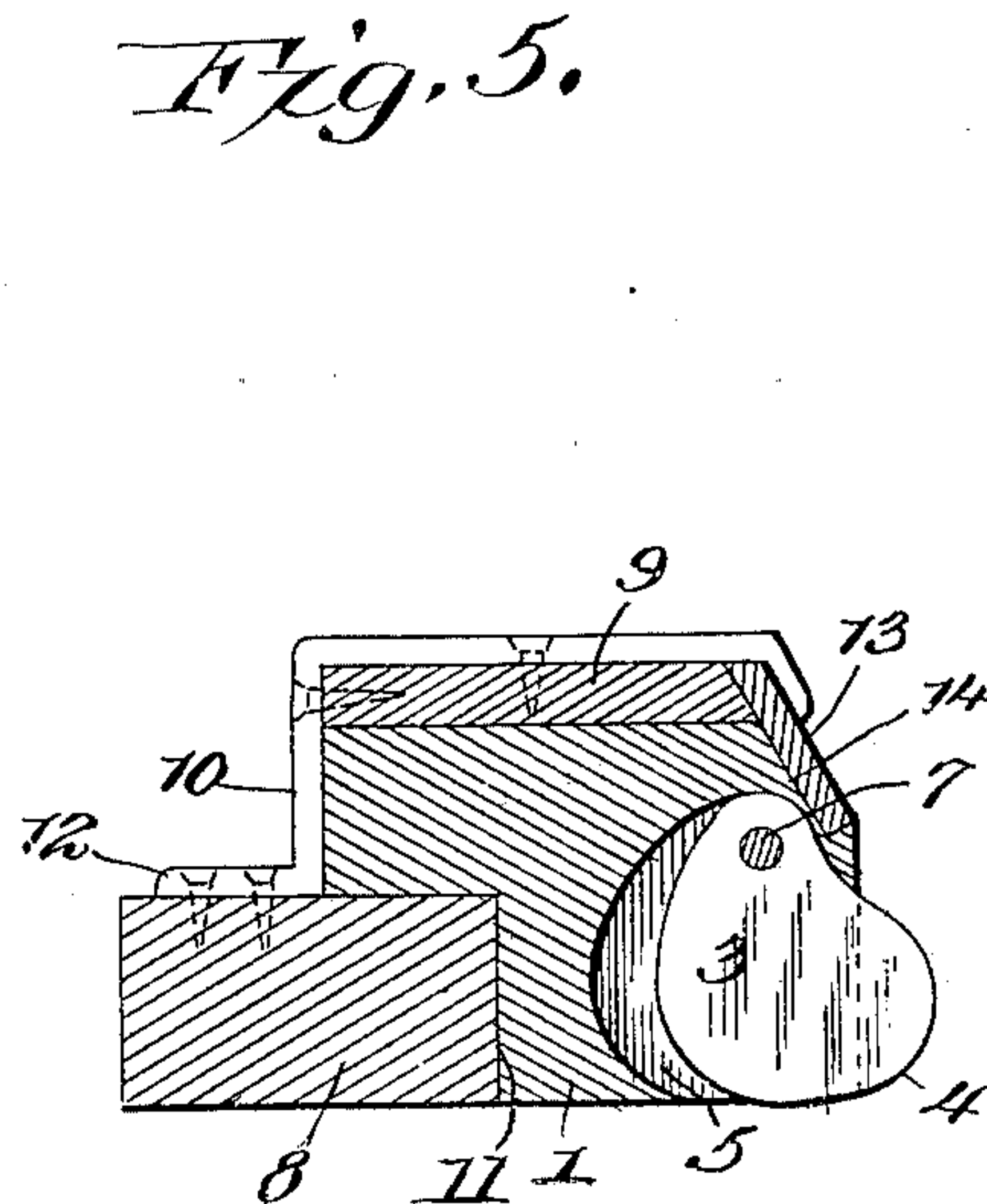
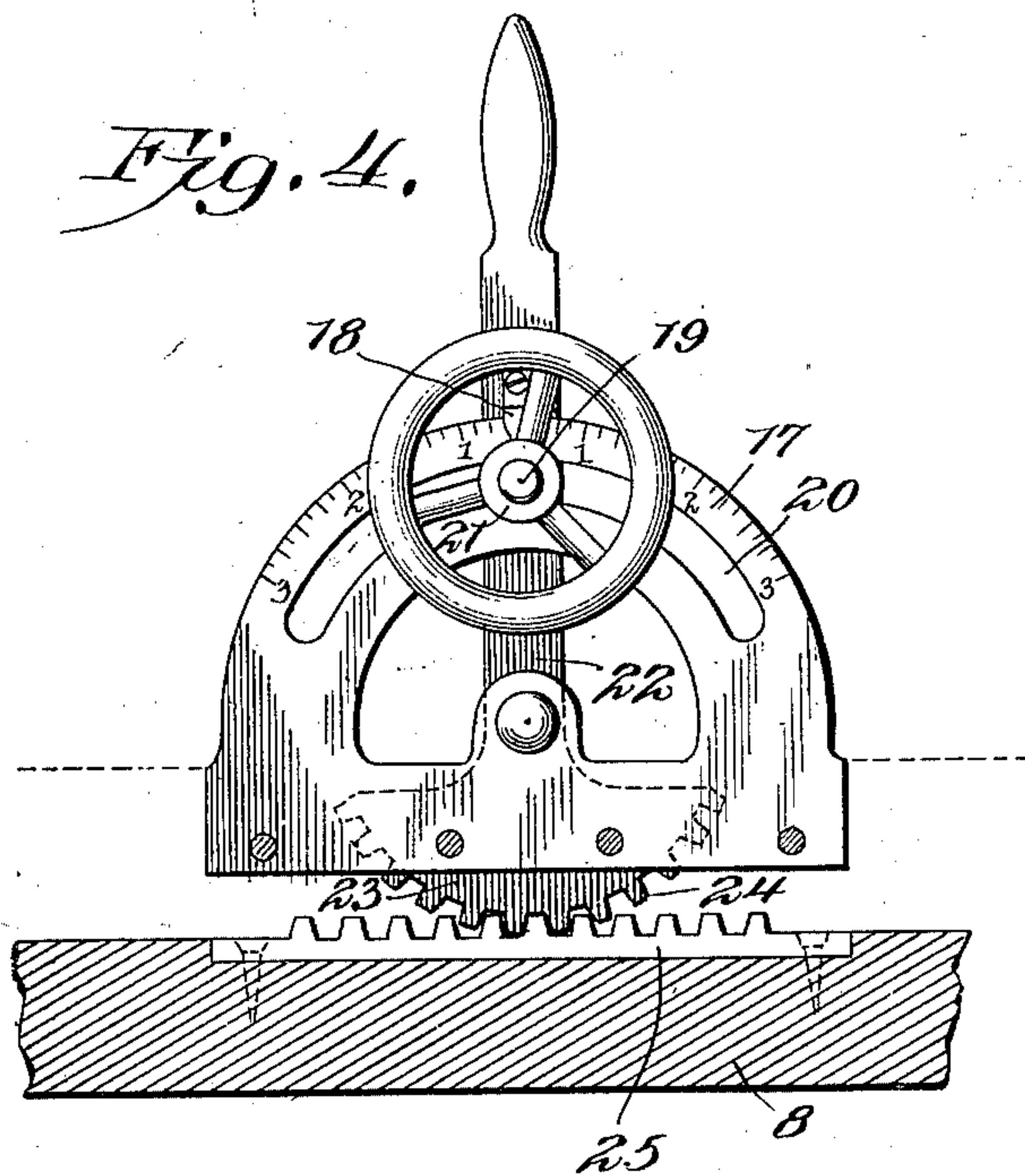
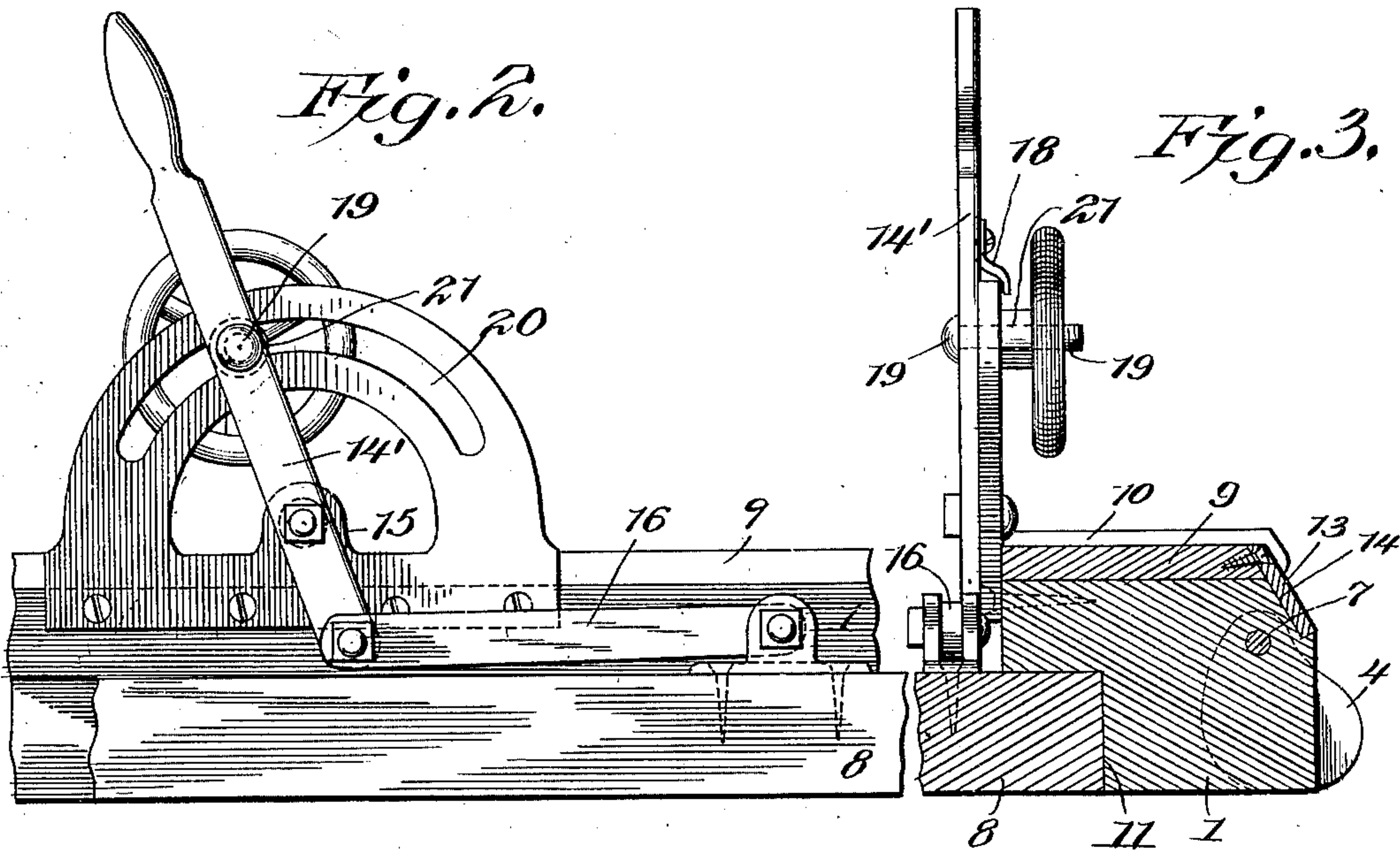
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Howard Dorr.
H. H. Riley

J. G. Strait, Inventor.
by C. A. Snowles.
Attorneys

UNITED STATES PATENT OFFICE.

JOHN G. STRAIT, OF WOLCOTT, NEW YORK.

GAGE FOR SAWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 663,645, dated December 11, 1900.

Application filed September 1, 1900. Serial No. 28,811. (No model.)

To all whom it may concern:

Be it known that I, JOHN G. STRAIT, a citizen of the United States, residing at Wolcott, in the county of Wayne and State of New York, have invented a new and useful Gage for Sawing-Machines, of which the following is a specification.

The invention relates to improvements in gages for sawing-machines.

10 The objects of the present invention are to improve the construction of gages for sawing-machines and to provide a simple and comparatively inexpensive one adapted to be readily applied to sawing-machines to afford
15 a series of stops for providing for a variety of measurements for cross-cutting and capable of adjustment to locate the stops at the desired distance from the saw, so that the proper cut or measurement may be accurately made.

20 The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

25 In the drawings, Figure 1 is a perspective view of a gage constructed in accordance with this invention and shown applied to a saw. Fig. 2 is a detail view showing one form of operative mechanism for adjusting the stop-bar. Fig. 3 is a transverse sectional view of the same. Fig. 4 is a detail view showing
30 another form of operative mechanism for adjusting the stop-bar. Fig. 5 is a transverse sectional view illustrating the manner of adjusting the automatic stops. Fig. 6 is a detail perspective view of one of the stops.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

40 1 designates a longitudinally-movable stop-bar designed to be arranged in suitable guides on the frame of a sawing-machine adjacent to a saw 2 and provided with a series of automatic stops 3, projecting beyond the stop-bar to form a gage for enabling lumber to
45 be sawed and measured the desired size and adapted to be automatically depressed or moved inward by the material and capable of automatically returning to their normal
50 position when the material is removed. The stops 3 project outward, as clearly shown in Fig. 1 of the accompanying drawings, and

any one of them may be used as a gage, and those lying between the one used and the saw will be forced inward by the material
55 and will not interfere with the placing of the material against the outer face of the stop-bar. These stops may be arranged at any desired intervals to meet the requirements of any business, and each consists, preferably,
60 of an approximately pear-shaped piece of flat steel or other suitable material, the lobe 4 of the stop projecting beyond the stop-bar and being normally held in such extended position by gravity; but the shape of the stops
65 may be changed and springs may be employed, if desired, for throwing them outward. The stop-bar is provided with a series of transverse apertures 5 for the reception of the stops, which are provided at their upper portions with an opening 6 for the reception
70 of a pivot 7, which may consist of a continuous rod or be constructed in any other suitable manner. The aperture 5 extends in rear of the stop 3 when the latter is arranged
75 as illustrated in Fig. 5 of the accompanying drawings to provide the necessary space for the stops when the latter are forced in by the material.

The way or guide for the stop-bar may be
80 constructed in any suitable manner; but it is preferably composed of a stationary bottom bar 8, a top bar 9, and a series of brackets 10, extending upward from the bottom bar and supporting the top bar. The stop-bar is provided at its rear face with a lower longitudinal recess 11, receiving the front portion of the bottom bar, as clearly shown in Fig. 5 of the accompanying drawings, and the top bar
85 9, which is arranged at the upper face of the stop-bar, extends forward beyond the plane of the front face of the bottom bar. The brackets, which are arranged at intervals, may be of any number, either two or more, and each consists of an approximately L-shaped
90 body portion extending upward from the bottom bar and secured to and supporting the top bar. These brackets may be of any desired construction, and they are provided at their bottoms with extensions 12, which are
100 secured by screws or other suitable fastening devices to the upper face of the bottom bar. These brackets may be substantially V-shaped, as illustrated in Fig. 1 of the accom-

panying drawings; but any other form of bracket may be employed. When the bracket is V-shaped, each of the sides will be of the configuration illustrated in Fig. 5 of the accompanying drawings.

The top bar 9 is provided at its front edge with an inclined plate or flange 13, provided with graduations consisting of inches and fractions thereof and preferably constructed of metal, the top and bottom bars being preferably made of wood, together with the stop-bar. The stop-bar is recessed at the upper portion of its front face at 14 to receive the stationary graduated plate or flange of the guide or way.

The stop-bar is adjusted longitudinally when it is desired to change the position of the stops with relation to the saw to provide for a measurement or measurements different from those afforded by the stops when the inner end of the stop-bar is located at the inner end of the stationary graduated flange or scale of the guide or way. This movement, which may be effected in a variety of ways, is accomplished in the form shown in Figs. 2 and 3 of the accompanying drawings by means of an operating-lever 14', fulcrumed on a support 15 and connected by a link 16 with the bottom bar of the guide or way, as clearly shown in Fig. 2. The bottom bar, which may consist of a portion of the saw-table, can be constructed in any other suitable manner, and the support is fixed to the back of the stop-bar and is preferably provided with a curved upper edge, as shown, and has a segmental scale 17 of inches and fractions of inches, which agree with the graduations of the plate or flange of the guide or way. The lever is provided with an indicator 18, arranged to move over the scales to indicate the distance the stop-bar is moved, and it will be readily apparent that the said stop-bar may be adjusted any distance within the scope of the adjusting mechanism and that the distance will be indicated by the pointer on the segmental scale. The lever is secured at any adjustment by means of a locking device consisting of a threaded bolt or pin 19, extending through a segmental slot 20 of the support and receiving a clamping-nut 21, which engages the support. The pin or bolt is provided at one end with a head for engaging the operating-lever, and the clamping-nut 21 is preferably in the form of a hand-wheel; but any other suitable form of locking device may be employed for holding the lever in its adjusted position. When the stop-bar is adjusted longitudinally and is moved from the saw, the stationary plate or flange 13 extends across the space between the saw and the inner end of the stop-bar and will indicate the distance the stops are from the saw.

In Fig. 4 of the accompanying drawings is illustrated another form of adjusting device, the operating-lever 22 being provided with a segmental head 23, having teeth 24, which mesh with a rack-bar 25 of the bottom bar.

The oscillation of the operating-lever 22 actuates the stop-bar in the same manner as the operating-lever 14.

It will be seen that the gage is simple and comparatively inexpensive in construction, that it is adapted to be readily applied to sawing-machines, and that it will afford a variety of measurements and may be readily adjusted to obtain a measurement not afforded by the stops when the stop-bar is in a position agreeing with the position of the stationary graduated scale of the guide or way.

Changes in the form, proportion, and minor details of construction within the scope of the claims may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention, such as may be necessary to apply the invention to any form of sawing or other machine for operating on wood or other material where accurate cutting of a variety of lengths is required.

What I claim is—

1. In a device of the class described, the combination of a bottom bar, the top bar spaced from the bottom bar to form a way, brackets connecting the top and bottom bars, a stop-bar arranged between the top and bottom bars in the way formed by the same, a series of stops mounted on the stop-bar, and means for adjusting the latter longitudinally, substantially as described.

2. In a device of the class described, the combination of a bottom bar, a top bar spaced from the bottom bar to form a way, brackets connecting the top and bottom bars, the sliding stop-bar arranged between the top and bottom bars and provided with a series of stops, a support having a segmental scale, an operating-lever fulcrumed on the support and connected with the stop-bar, and the inclined plate or flange extending from the top bar and engaging the stop-bar and provided with a scale, said plate or flange being stationary and adapted to extend across the space between the inner end of the stop-bar and a saw when the said stop-bar is moved from the latter, substantially as described.

3. In a device of the class described, the combination of a frame having a stationary longitudinal scale, a sliding stop-bar mounted on the frame and provided at intervals with stops, and an adjusting device connected with the frame and with the stop-bar and having a graduated scale corresponding with the graduations of the longitudinal scale, the latter being arranged to extend across the space between the inner end of the stop-bar and a saw to indicate the distance the stops are from the saw when the said stop-bar is adjusted substantially as described.

4. A device of the class described, comprising a frame having a guide or way and provided at the front thereof with a stationary longitudinal scale, a sliding stop-bar mounted in the guide or way, said scale being arranged to form a continuation of the stop-bar when the latter is extended, a support

having a segmental scale agreeing with the said scale, and an operating-lever fulcrumed on the support and connected with and adapted to actuate the stop-bar, substantially as described.

5 5. In a device of the class described, the combination of a bottom bar, a top bar, brackets connecting the top and bottom bars, an inclined plate or flange extending from the top bar, a stop-bar mounted on the frame
10 between the top and bottom bars and pro-

vided with stops, and adjusting mechanism for moving the stop-bar, substantially as described.

In testimony that I claim the foregoing as 15 my own I have hereto affixed my signature in the presence of two witnesses.

JOHN G. STRAIT.

Witnesses:

EDWARD H. KELLOGG,
GEO. P. GRAVES.