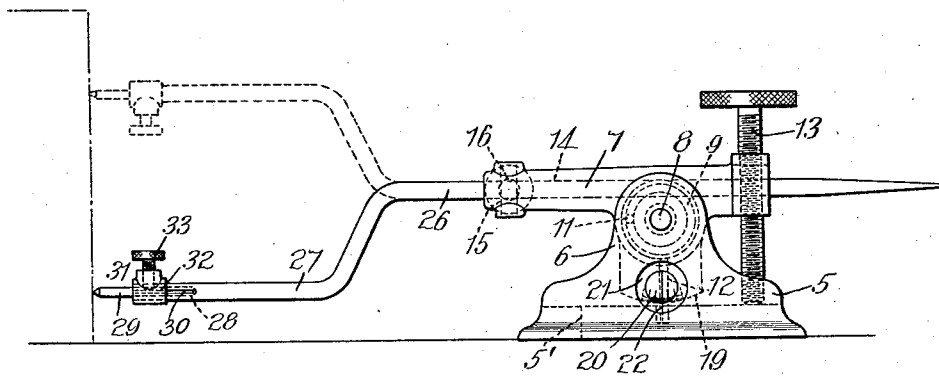
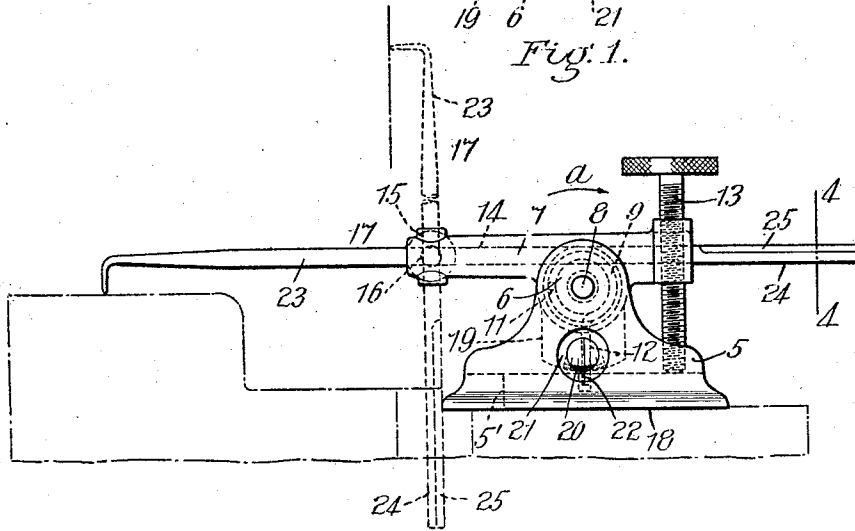
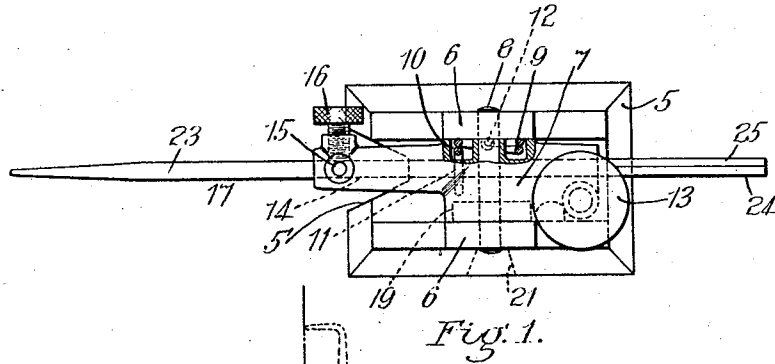


J. B. FLINT.
SURFACE GAGE.
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1,032,999.

Patented July 16, 1912.



Witnesses.
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UNITED STATES PATENT OFFICE.

JOHN B. FLINT, OF BOSTON, MASSACHUSETTS.

SURFACE-GAGE.

1,032,999.

Specification of Letters Patent.

Patented July 16, 1912.

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To all whom it may concern:

Be it known that I, JOHN B. FLINT, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Surface-Gages, of which the following is a specification.

This invention relates to surface gages and has for its object to provide a light and inexpensive gage which may be quickly adjusted to scribe parallel lines upon wood or metal surfaces which may be at any angle to the base of said gage.

The object is further to provide a device adapted to be used as a try-square, a depth gage, or to measure the angle between two surfaces.

To these ends, the invention consists in the combination and arrangement of parts set forth in the following specification and particularly pointed out in the claims thereof.

Referring to the drawings: Figure 1 is a plan view of a surface gage embodying my invention, the same being broken away and shown in section. Fig. 2 is a side elevation of the same. Fig. 3 is a side elevation with a portion of the base broken away and having another form of marker shown therein. Fig. 4 is an enlarged detail section taken on line 4—4 of Fig. 2.

In Figs. 2 and 3, surfaces to be described are indicated in broken and dotted lines.

Like numerals refer to like parts throughout the several views of the drawings.

In the drawings, 5 is a base upon which are upwardly extending ears 6, 6. A rocking member 7 is mounted between said ears upon a pivot 8 supported in said ears and motion is imparted thereto in one direction by a torsional spring 9 located within a recess 10 formed in the side of said rocking member and concentric with the pivot 8. One end 11 of said spring engages the rocking member, while the other end 12 projects downwardly and engages the base 5, thereby tending to rock said member in the direction of the arrow *a*, Fig. 2.

A thumb-screw 13 has screw-threaded engagement with the member 7 and bears upon the upper surface of the base 5 between the ears 6 and by the rotation of said screw it will be readily seen that said member 7 will be rocked upon its pivot 8 against or with the action of said spring, according to the direction of rotation of said screw.

The rocking member 7 is provided with a hole 14 extending longitudinally there-through transversely of the pivot 8 and at one side of the median axial line of said pivot. Another hole 15 is provided in said member 7 extending transversely of the hole 14 and also transversely of the pivot 8, both said holes 14 and 15 being adapted to receive a marker 17 which may be secured in either of said holes by a screw 16.

In order that the relative angle between the median axial line of the pointer 17 and the bearing face 18 of the base 5 may be obtained, I preferably employ the following method. The extended face 19 of the member 7 has marked thereon radial lines 20, 20 converging to the axis of the rocking member 7 and representing degrees. A countersunk hole 21 in the ear adjacent to the face 19 of said rocking member has upon its lower edge an index line 22 which registers with the lines on said face 19, thereby indicating the relative angle of said parts.

In the general use of a gage of this character, different markers are employed, according to the positions of the surfaces relatively to each other, as, for instance, in Fig. 2 I have shown a marker 23 having one of its ends tapered to a point and bent transversely of the median axial line of said pointer, and when said marker is placed in the hole 14 and clamped by the screw 16 it is adapted to mark upon a surface parallel to the bearing face 18 of the base 5. Again, if this same tool is placed in the hole 15, as shown in dotted lines, Fig. 2, it is adapted to mark a surface at right angles to said face 18, or by rocking the member 7 upon its pivot 8 by means of the thumb-screw 13 and spring 9, it will be readily seen that surfaces at any angle to each other may be marked, the base 5 being recessed at 5' to allow a free movement of the marker while in the hole 15. For use in measuring the angle between surfaces, the end 24 of the pointer 23 is beveled to form a V-shaped edge 25 which is placed against one of the surfaces to be measured, while the face 18 may be placed against the other of said surfaces by the rotation of the thumb-screw 13, the result being indicated by the lines 20, 20 registering with the index line 22. When it is desired to use said gage as a depth gage, the marker 23 is placed in the hole 15, as in dotted lines, Fig. 2, and the end 24 thereof moved up or down as desired,

while as a try-square, said marker is also placed in the hole 15 with the V-shaped edge 25 pointing toward said base.

In Fig. 3, I have shown another form of marker 26 having an offset portion 27 which is drilled at 28 to receive a lead or steel point 29. A slot 30 is provided in the end 27 which allows the sides of the hole 28 to be drawn together by a clamp 31 mounted thereon, said clamp consisting of a collar 32 and screw 33 having screw-threaded engagement with said collar. It will be seen that by the rotation of said marker 26 in the rocking member 7, the point of said marker will be moved toward or from the face 18, thereby giving an adjustment independent of the adjustment provided by the rocking of the member 7.

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

1. A surface gage having, in combination a base, upwardly extending ears formed integral therewith, a pivot, a rocking member mounted on said pivot between said ears and having a hole extending longitudinally therethrough transversely of said pivot and at one side of the median axial line thereof, a marker adjustably mounted within said hole and means to rock said rocking member.

2. A surface gage having, in combination, a base, upwardly extending ears formed integral therewith, a pivot, a rocking member mounted on said pivot between said ears and having a hole extending longitudinally therethrough transversely of said pivot and at one side of the median axial line thereof, said rocking member also having a hole extending transversely of said first-named hole and transversely of said pivot, a marker adapted to be adjustably mounted in either of said holes, and means to rock said rocking member.

3. A surface gage having, in combination, a base, upwardly extending ears formed integral therewith, a pivot, a rocking member mounted on said pivot between said ears

and having a hole extending longitudinally therethrough transversely of said pivot and at one side of the median axial line thereof, said rocking member also having a hole extending transversely of said first-named hole and transversely of said pivot, a marker adapted to be adjustably mounted in either of said holes and having one of its ends offset, whereby the position of the point at said offset end may be changed by the rotation of said marker within said holes.

4. A surface gage having, in combination, a base having upwardly extending ears, a rocking member pivoted between said ears, a torsional spring located within a recess in said rocking member and concentric with the pivot thereof, one end of said spring engaging said rocking member and the other end of said spring engaging said base, whereby said rocking member is rocked in one direction, means to rock said rocking member in the opposite direction, and a marker adjustably connected to said rocking member.

5. A surface gage having, in combination, a base having upwardly extending ears, a rocking member pivoted between said ears, a torsional spring located within a recess in said rocking member and concentric with the pivot thereof, one end of said spring engaging said rocking member and the other end of said spring engaging said base, whereby said rocking member is rocked in one direction, a thumb-screw having screw-threaded engagement with said rocking member, one end of said screw engaging said base, whereby said member may be rocked in the opposite direction, and a marker adjustably connected to said rocking member.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN B. FLINT.

Witnesses:

SYDNEY E. TAFT,
ANNIE J. DAILEY.