

F. A. STRODEL.

THILL IRON.

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905,113.

Patented Nov. 24, 1908.

Fig. 1.

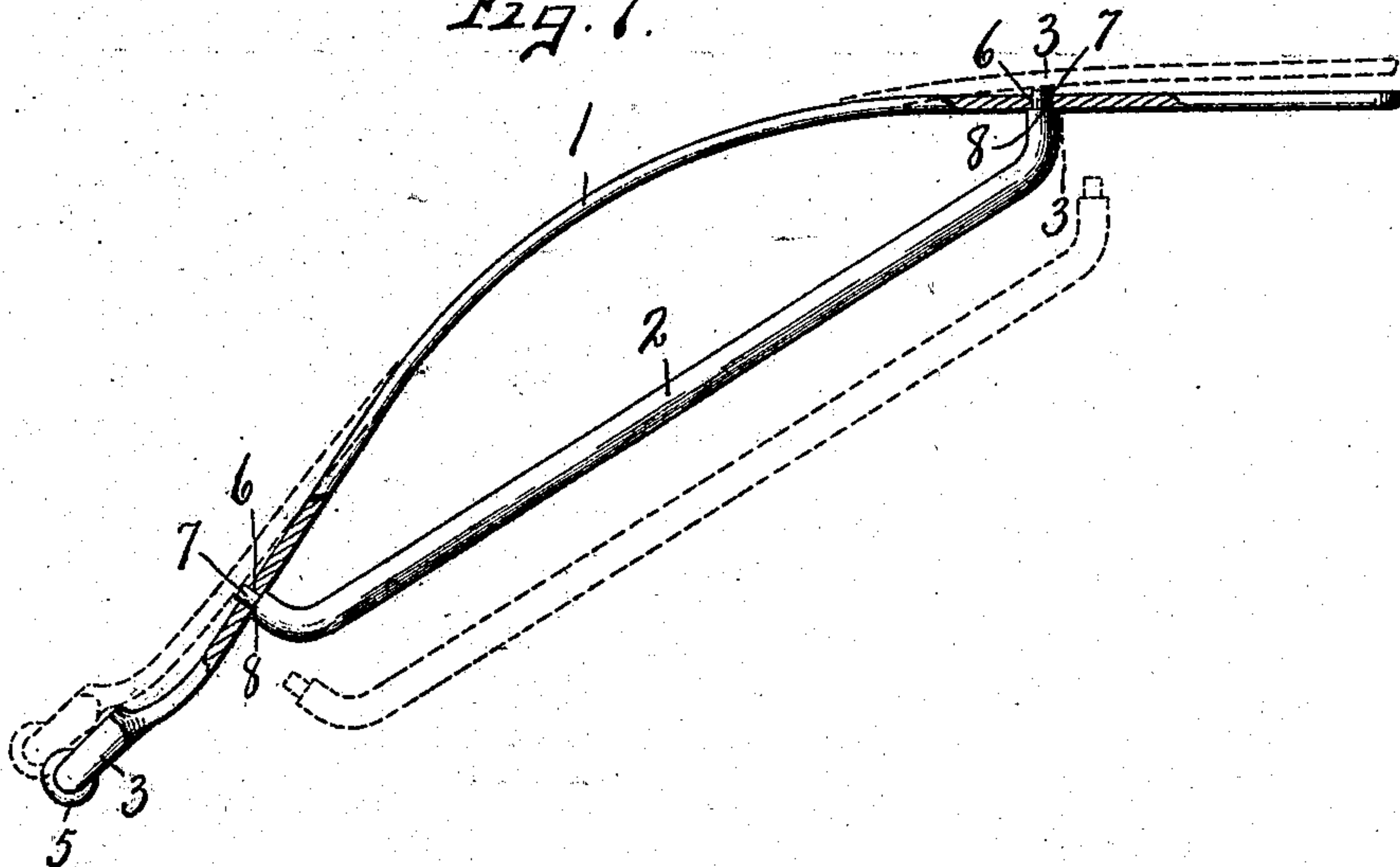


Fig. 2.

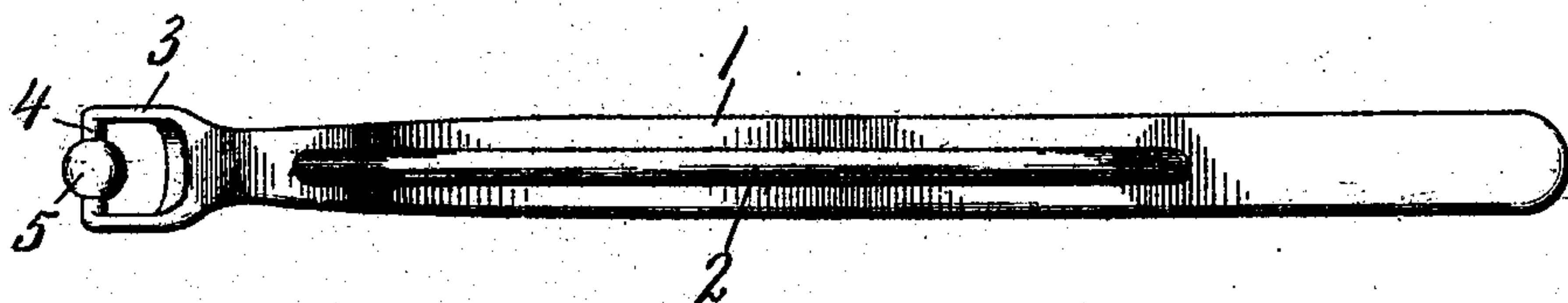
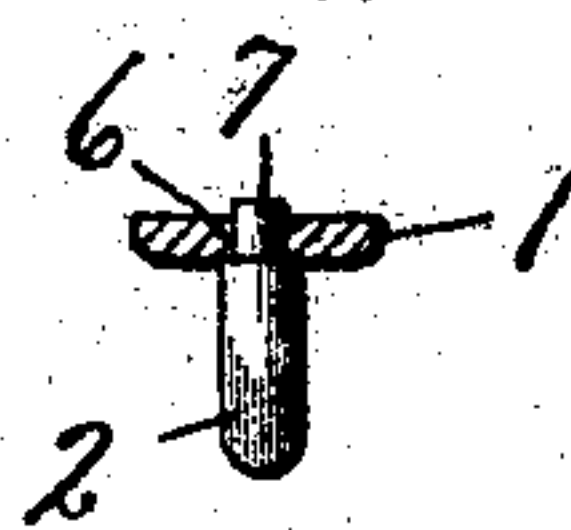


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

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THILL-IRON.

No. 905,113.

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To all whom it may concern:

Be it known that I, FRANK A. STRODEL, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and
5 useful Improvements in Thill-Irons, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to certain improve-
10 ments in thill irons as a new article of manufacture, involving the use of a brace which spans the chord of the arc or bend of the thill iron proper.

My object is to manufacture a thill iron
15 with a brace loosely, but firmly, held in place by the spring tension of the strap iron to which it is attached, so that it may be removed by springing the ends of the strap out of interlocking engagement with the ends
20 of the brace, thereby permitting the use of the thill iron with or without the brace as may be desired, and at the same time, enabling the two parts to be manufactured and shipped in an assembled or knock-down con-
25 dition.

Other objects and uses relating to specific parts of the thill iron will be brought out in the following description.

In the drawings—Figure —1— is a side
30 elevation partly in section of a thill iron embodying my improvements. Fig. —2— is an inverted plan of the same. Fig. —3— is a sectional view taken on line 3—3, Fig. —1—.

35 As shown in the drawings this thill iron comprises a curved strap or bar —1— of resilient metal and a brace —2—, which may be made of wrought iron, steel or other suitable metal.

40 The strap iron which is substantially flat and of uniform thickness throughout the greater portion of its length is adapted to be secured to the under side of a wood thill or pole in the manner well known, the rear end
45 of said strap iron being formed with an integral loop —3— and coupling pin —4—, having a spherical knuckle —5—.

Suitable apertures —6— are formed in the strap iron —1— at opposite ends of the
50 arc for receiving reduced ends —7— of the brace —2—, which latter is preferably rounding in cross section. The reduced ends —7— are of slightly greater length than the

thickness of the metal strap —1— through which they project and form abutting shoulders —8— which engage the inner face of the strap —1—.

The apertures —6— are formed in the longitudinal center of the strap —1—, substantially radial to the arc or curvature, while
60 the main body of the brace —2— extends lengthwise of the chord of said arc between the apertures —6— and has its opposite ends deflected laterally and substantially radial to the same arc, so that the reduced ends —7—
65 enter the apertures —6— in substantially radial lines.

The strap —1— is tensioned so as to spring inwardly against the shoulders —8— when the reduced ends —7— are inserted in
70 the apertures —6—, thereby serving to retain the brace —2— in operative position upon the strap —1— without additional fastening by reason of the fact that the tension of the spring strap —1— tends to shorten
75 the chord between the apertures —6—.

By constructing the thill iron in the manner just described, the combined strap and brace —2— may be made and sold as a separate article of manufacture and shipped to
80 the trade either in an assembled or knock-down condition, it being understood that the reduced ends —7— of the brace —2— may be readily withdrawn from the apertures —6— by simply springing the ends of the
85 strap —1— outwardly to the position shown by dotted lines in Fig. —1—, thereby releasing the brace —2—.

This construction of thill iron enables the manufacturer of the thills or poles to use the
90 strap —1— with or without the brace according to the work which may be required or desired of the user.

What I claim is:—

1. A thill iron comprising a curved resili-
95 ent strap of metal having apertures near the opposite ends of the curve and a brace extending lengthwise of the chord of the curve and having its ends loosely inserted in said apertures and held in place by the resilient
100 strap.

2. A thill iron comprising a curved metal strap having a coupling pin at one end and provided with apertures therethrough near
105 opposite ends of the curve and a brace extending lengthwise of the chord of the curved

portion of the strap and having its opposite
ends reduced in size and loosely inserted in
said apertures, the reduced ends forming
shoulders near the ends of the brace, said
5 strap having its opposite ends spring ten-
sioned in the direction of the brace to retain
said brace in operative position.

In witness whereof I have hereunto set my
hand this 24th day of August 1908.

FRANK A. STRODEL.

Witnesses:

H. E. CHASE,
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