

No. 704,031.

Patented July 8, 1902.

S. T. HALL.
TREE LIMB SUPPORT.

(Application filed Sept. 12, 1901.)

(No Model.)

Fig. I

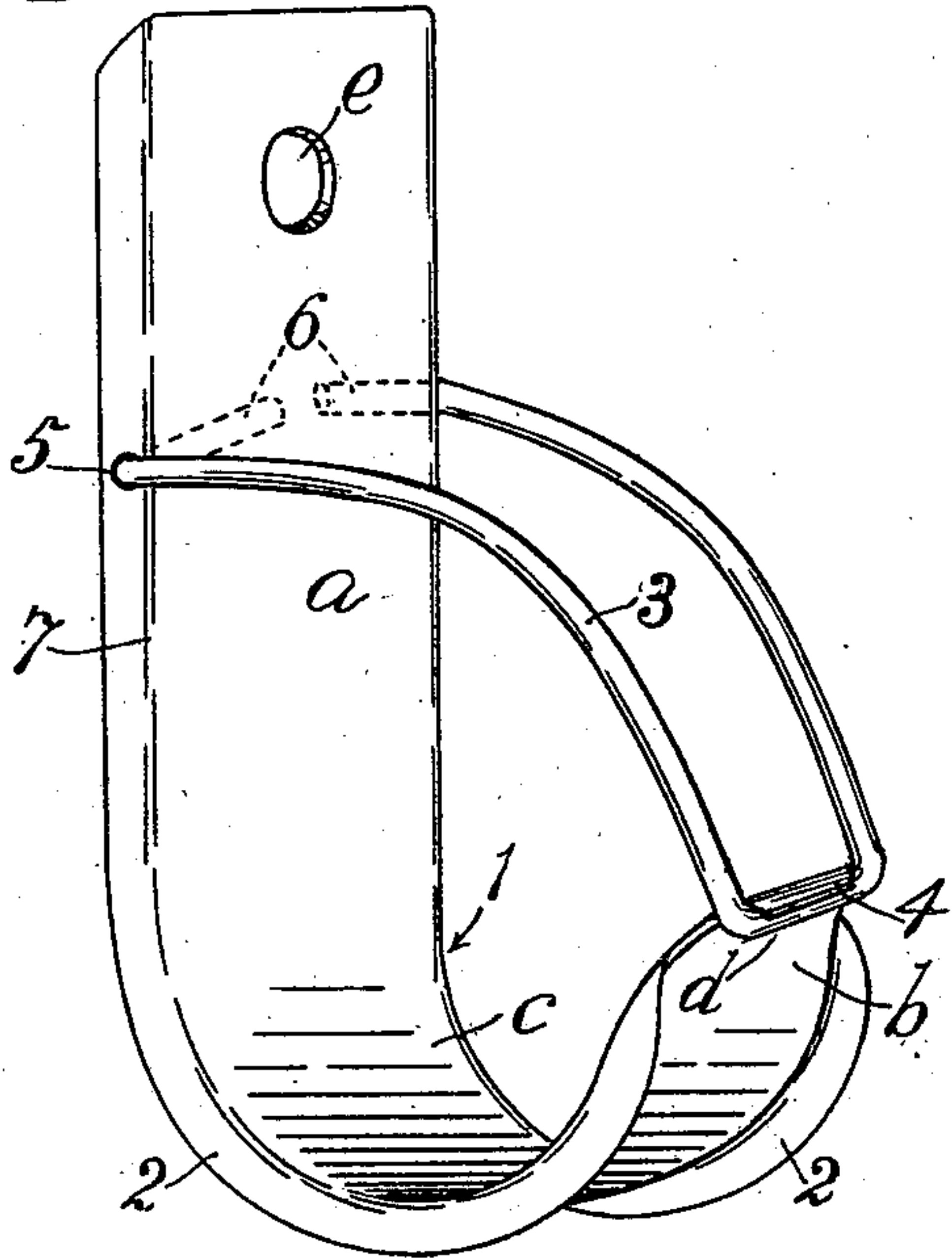


Fig. II

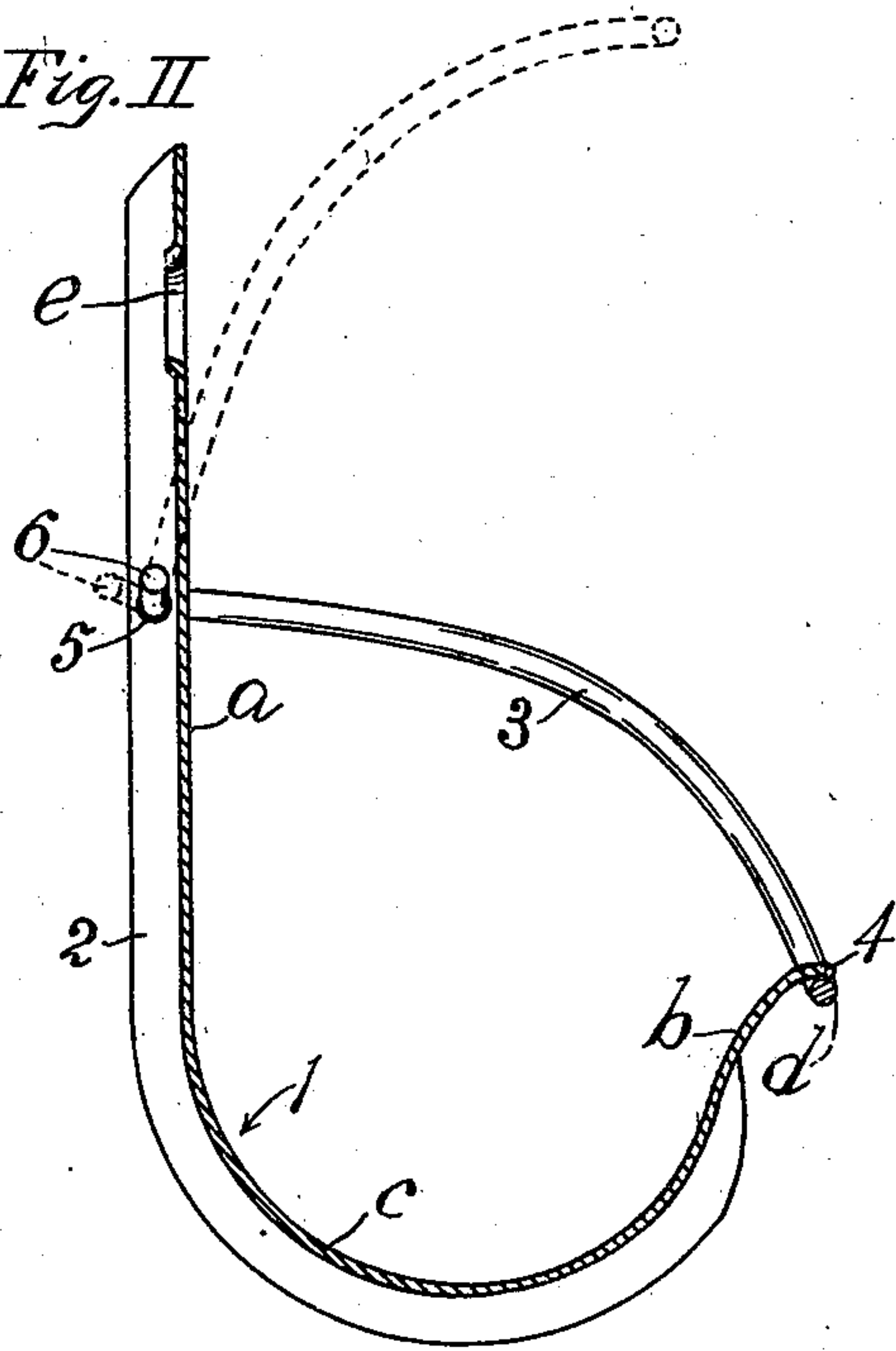


Fig. III

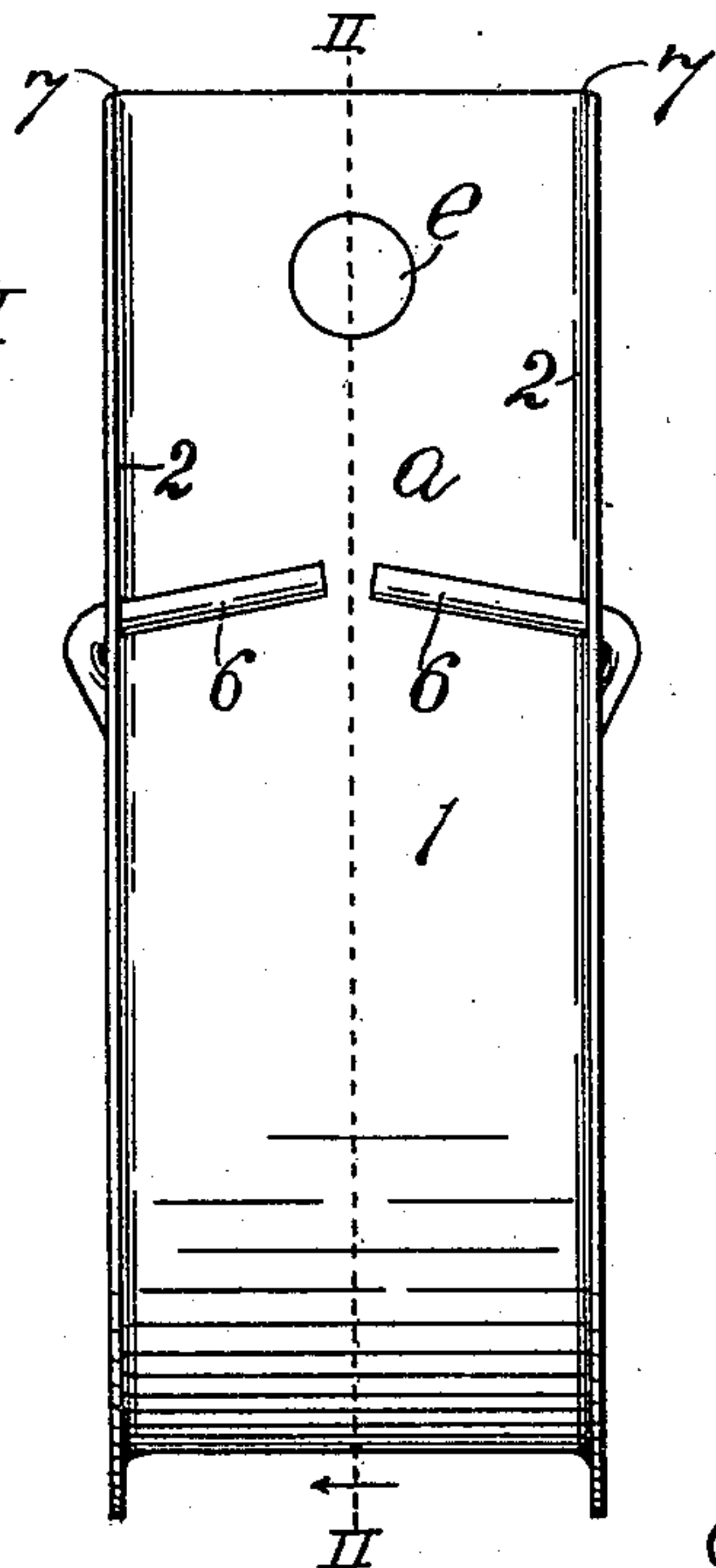
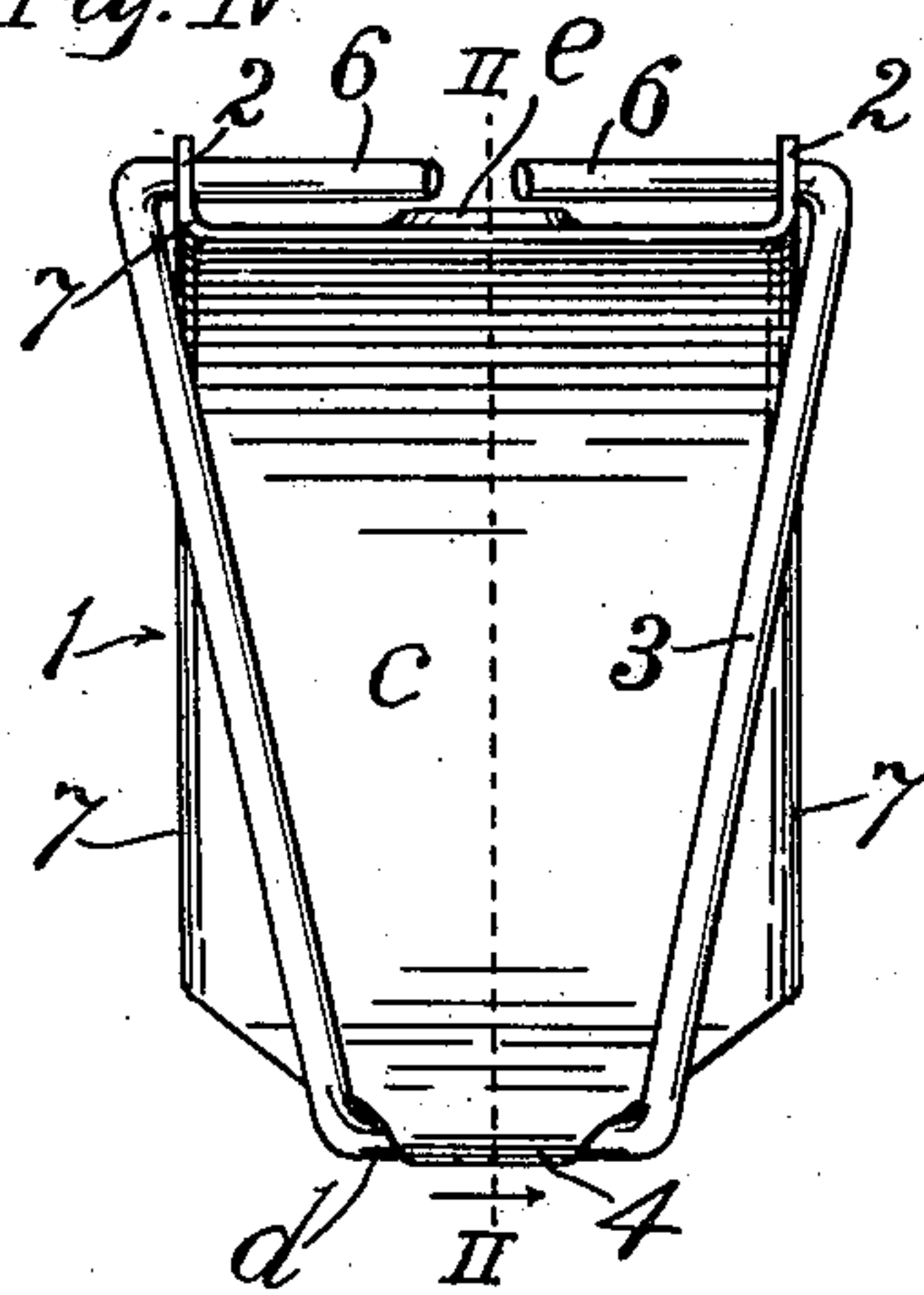


Fig. IV



Witnesses

C. C. Healy.
J. Townsend.

Inventor

Sylvester T. Hall
by Townsend Bros.
his Atty.

UNITED STATES PATENT OFFICE.

SYLVESTER T. HALL, OF RIVERSIDE, CALIFORNIA.

TREE-LIMB SUPPORT.

SPECIFICATION forming part of Letters Patent No. 704,031, dated July 8, 1902.

Application filed September 12, 1901. Serial No. 75,228. (No model.)

To all whom it may concern:

Be it known that I, SYLVESTER T. HALL, a citizen of the United States, residing at Riverside, in the county of Riverside and State of California, have invented a new and useful Improvement in Tree-Limb Supports of which the following is a specification.

This invention is designed for use in supporting some of the limbs of fruit and other trees by means of connections between the same and other limbs of the same tree, whereby the head of the tree is internally tied and braced from center to outside to prevent damage from overloading or from winds. Such internal braces and ties sometimes require to be changed from limb to limb for various reasons, among which may be mentioned the fact that limbs which overbear one season are liable to be practically barren the next season, while limbs that did not bear one season may be heavily loaded the next.

Some of the objects of this invention are as follows, viz: to provide a cheap, simple, and strong attachment for supporting tree-limbs which will not abrade or bruise the same and which can be applied to and removed from the limb with the greatest ease and facility; also, to make provision for packing the supporters in the smallest possible space for storage and transportation. For these ends I provide a limb-supporting device composed of two simple parts which can be readily manufactured separately and afterward easily assembled and which the user can fasten upon and release from the tree-limb with one hand and which is not liable to become accidentally unfastened.

The invention can be variously constructed.

The accompanying drawings illustrate my invention in a preferred form.

Figure I is a perspective view of a limb-supporter embodying my invention. Fig. II is a sectional view on line II II, Figs. III and IV. Fig. III is a rear elevation, and Fig. IV a plan.

1 indicates a limb-carrying loop, preferably of sheet metal, reinforced by longitudinal ribs 2.

3 indicates a tie, preferably consisting of a wire loop bent to form an arch, as clearly shown in Figs. I and II, and pivoted to one

member *a* of the limb-carrying loop and constructed to extend across the loop and having an end member *d* to engage a spring-catch 4 at the end of the other member *b* of the limb-carrying loop to fasten the supporter on the limb.

The preferable manner of pivoting the tie 3 to the loop 1 is shown in the drawings, where the ribs 2 at the edges of the loop 1 are pierced with holes 5, through which are inserted the inbent ends 6 of the tie 3. One or both of the inbent ends 6 are preferably upwardly deflected, as indicated in Figs. I, II, and III, to afford convenient means at the pivot for the manipulation of the tie 3, so that when the operator desires to apply the supporter to a limb he can lift the tie into the position shown in dotted lines in Fig. II by simply pressing upon the deflected end 6 to bring it to the position shown in said dotted lines. This can be readily done by means of one finger of the hand which grasps the appliance.

When the loop 1 is adjusted beneath the limb to be supported, the tie will be released and allowed to fall into position (not shown) above the catch 4. Then the member *b* of loop 1 will be pressed in to allow the end of the tie 3 to come below the catch 4. The loop 1 is then released and springs outward, so that catch 4 will hold the tie positively in place until released by again pressing in the member *b*, whereupon the tie can again be raised and the supporter removed from the one limb to another one as desired.

The limb-supporting portion *c* of the loop 1 is broad and smooth and rounded at the edges 7, and therefore will not bruise or abrade the limb. The arched tie extends across over the limb and is not liable to be bent or accidentally released by contact with other parts of the tree or by blows or pressure from any object. Furthermore, the arched form of tie greatly strengthens the limb-supporter and at the same time provides for a certain resiliency in the supporter. The tie and loop are both preferably resilient.

The tie is readily applied to and removed from the loop by simply springing the ends 6 apart to insert them into and withdraw them from the holes 5.

The supporters are to be attached to appro-

priate limbs of the tree and connected together by wires or other connecting devices (not shown) fastened to the limb-holding loop 1 at the hole *e*, provided for that purpose.

5 In practice the limb-supporters are left in the tree from year to year, so long as required, being out of the way and not subject to accidental displacement.

The tie 3 is firmly held by the catch 4 and 10 prevents the limb from accidentally getting out of the supporter, so that the connection will not be broken by any movement of the limbs by wind or otherwise.

The tie is preferably pivoted outside of the 15 loop, and the tie-manipulating means at 6 are preferably outside of the loop, so that the first finger of the hand which grasps the loop will readily press said means to lift the tie.

The tie is preferably made of spring-wire 20 bent into a loop and having its ends bent toward each other and slightly upward, the center of the wire being formed into a loop to engage with the spring and catch upon the limb-supporting loop.

25 What I claim, and desire to secure by Letters Patent of the United States, is—

1. A limb-supporter comprising a loop furnished with a broad limb-supporting portion and a tie-retaining spring-catch; and a tie 30 pivoted to one member of the loop and constructed to extend across the loop and engage the catch.

2. A limb-supporter comprising a loop furnished with a broad limb-supporting portion 35 and a tie-retaining spring-catch; and an arched tie pivoted to one member of the loop and constructed to engage the catch.

3. A limb-supporter comprising a sheet-metal loop furnished with a tie-retaining 40 spring-catch and a tie pivoted to the loop and constructed to extend across the loop and engage the catch.

4. A limb-supporter comprising a sheet-metal loop bent at one end to form a catch; 45 and a wire loop having free ends pivoted to

the sheet-metal loop and having an end member to engage the catch.

5. A limb-supporter comprising a ribbed sheet-metal limb-supporting loop bent at one end to form a catch and a tie consisting in a 50 wire loop having in bent ends inserted through the ribs of the limb-supporting loop.

6. A limb-supporter comprising a limb-supporting loop, one member of which is furnished with a catch, and a wire tie having 55 in bent ends by which it is pivoted to the other member of the loop, one or both of said ends being deflected to afford means for manipulating the tie.

7. The combination of a sheet-metal loop 60 furnished at the end of one member with a spring-catch; and a wire-loop tie constructed to engage the catch and pivoted to the other member of the sheet-metal loop.

8. The combination of a ribbed sheet-metal 65 loop furnished at the end of one member with a spring-catch, and a loop-tie constructed to engage the catch, and pivoted to the other member and furnished at the pivot with means for manipulating the tie. 70

9. The combination of a loop furnished with a catch and a loop-tie constructed to extend across the loop and to engage the catch, and 75 pivoted to the loop and furnished at the pivot with means by which to manipulate the tie.

10. A loop furnished with a catch and a loop-tie constructed to extend across the loop and to engage the catch, and being pivoted 80 to the loop on the outer side thereof, and there provided with means for manipulating the tie.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, at Los Angeles, California, this 7th day of September, 1901. 85

SYLVESTER T. HALL.

Witnesses:

JAMES R. TOWNSEND,
JULIA TOWNSEND.