

(No Model.)

I. J. COCAYNE.
COOPER'S PLANE.

No. 597,930.

Patented Jan. 25, 1898.

Fig. 1.

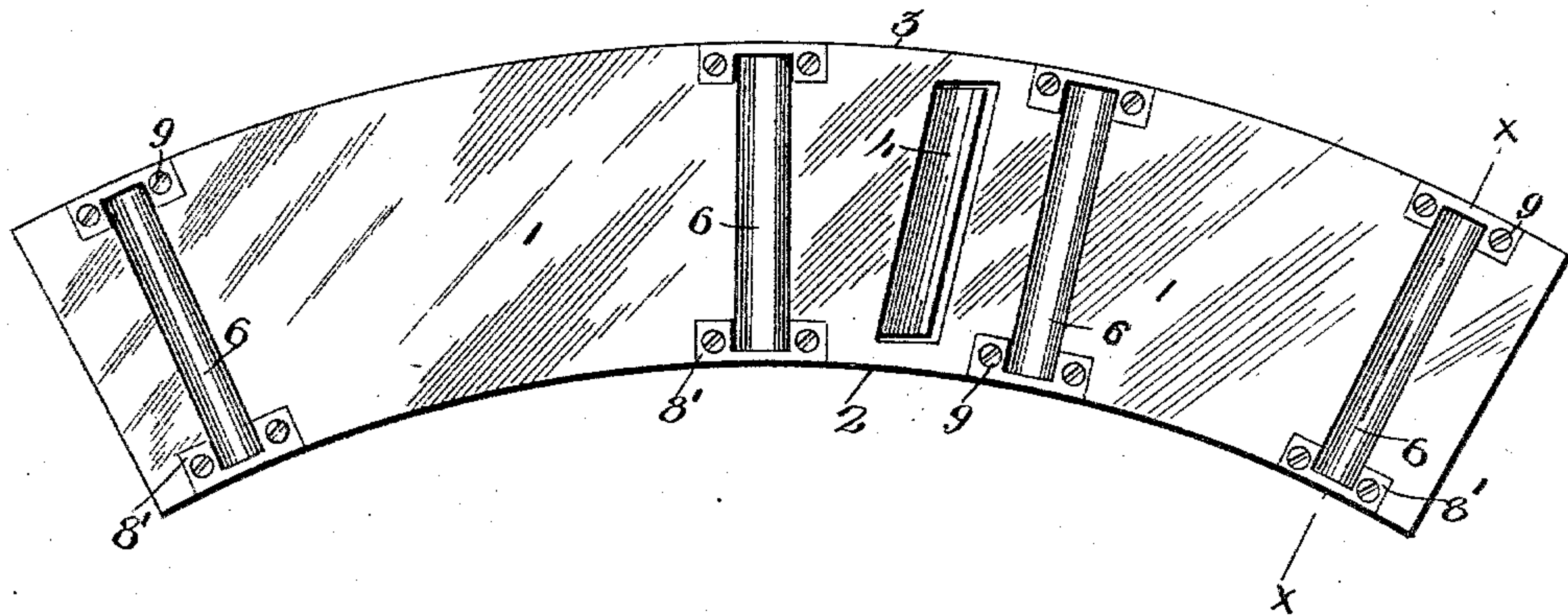


Fig. 2.

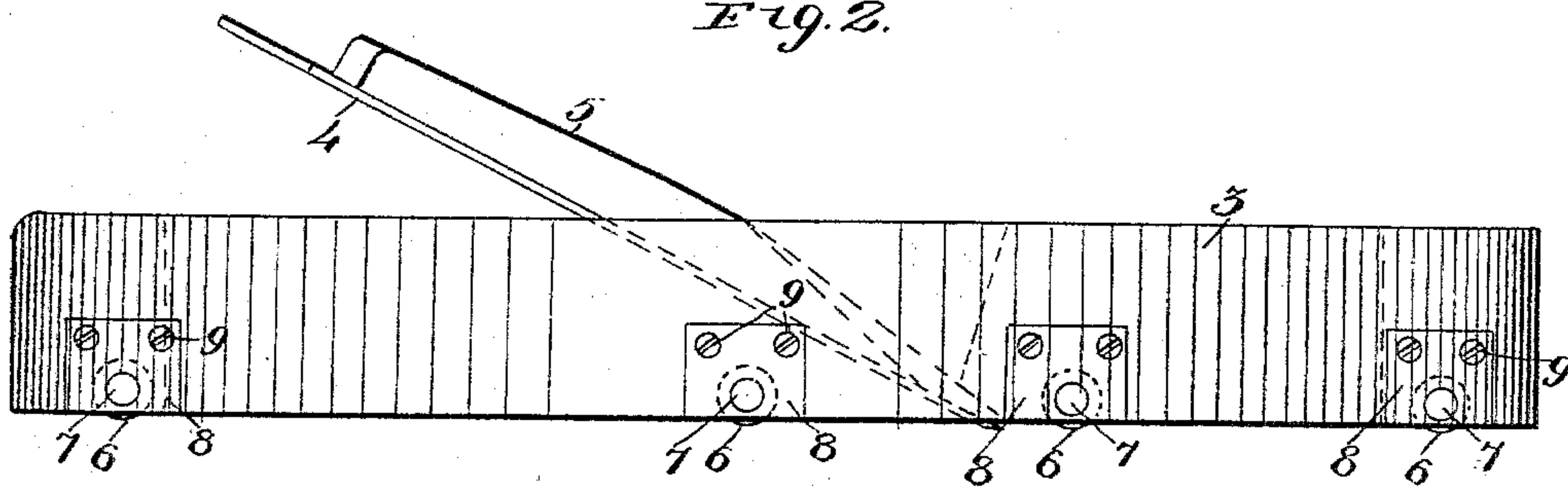


Fig. 3.

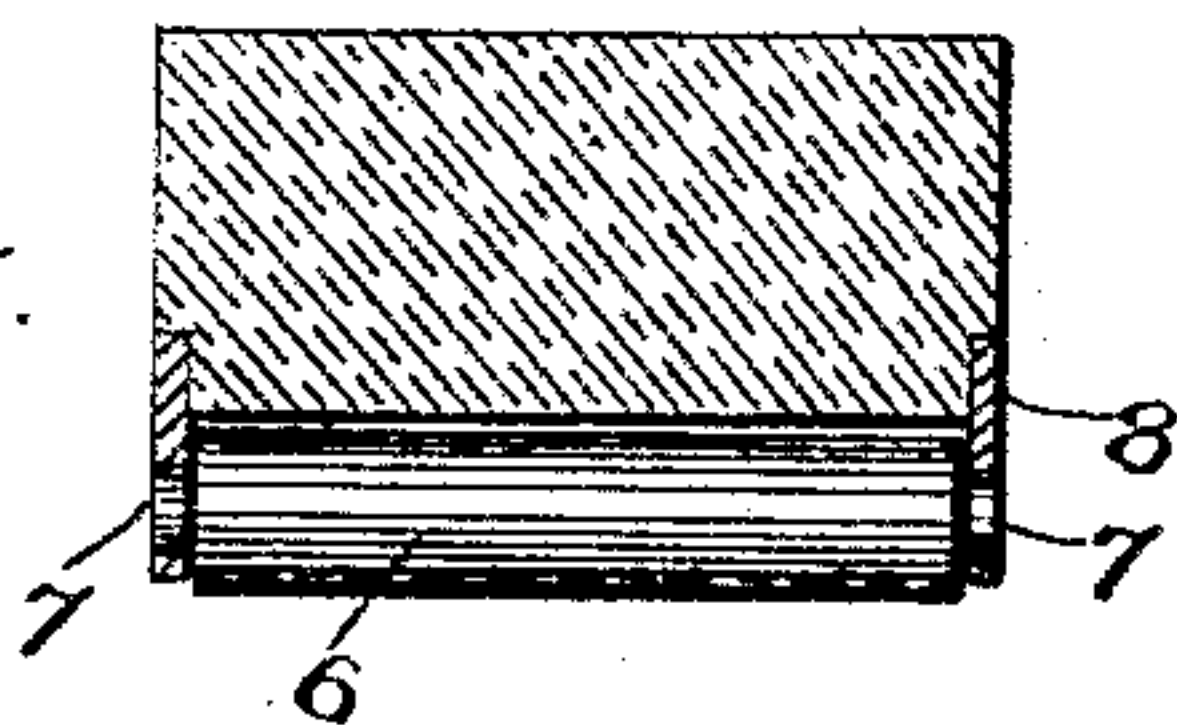
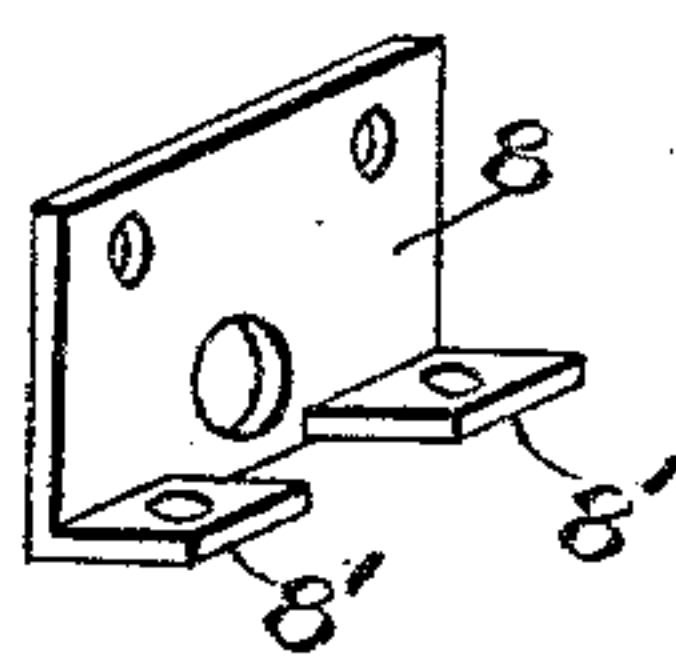


Fig. 4.



Witnesses
Alfred A. Mather
Chris Ballch

Inventor
Isidore J. Cocayne.
By His Attorneys
Keller & Storer

UNITED STATES PATENT OFFICE.

ISIDORE J. COCAYNE, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF TO
PETER STREBLER, OF SAME PLACE.

COOPER'S PLANE.

SPECIFICATION forming part of Letters Patent No. 597,930, dated January 25, 1898.

Application filed July 26, 1897. Serial No. 645,989. (No model.)

To all whom it may concern:

Be it known that I, ISIDORE J. COCAYNE, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Coopers' Planes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part thereof.

My invention has relation to improvements in planes; and it consists in the novel construction and combination of parts more fully set forth in the specification and pointed out in the claim.

In the drawings, Figure 1 is a bottom plan view of a cooper's plane. Fig. 2 is an elevation viewed from the outer curved wall or side of the same. Fig. 3 is a section on line *xx* of Fig. 1, and Fig. 4 is a perspective of one of the supporting bearing-plates for the rollers carried by the plane.

The object of my invention is to construct a cooper's plane—that is, one designed to trim off the upper curved edge of a barrel after the staves are properly assembled—the particular purpose of the present construction being to preserve the sole of the plane-stock against the deleterious effects of the rough usage to which it is subjected.

In detail the invention may be described as follows:

Referring to the drawings, 1 represents the plane-sole or under surface of the wooden stock of the plane, which in the present instance is made with curved inner and outer lateral concentric walls 2 and 3, respectively.

4 represents the blade, and 5 the securing block or wedge for the same.

That the mouth of the plane shall always remain constant and that the same should not at any time become choked with shavings it is essential that the sole (on the integrity of which the constancy of the mouth-opening depends) should be preserved against any undue wear. This I accomplish by mounting within suitable depressions in the sole a series of rollers 6, mounted along radial lines of the concentric circles by whose arcs the walls 2 and 3 are described, the spindle 7 of

each roller being mounted in a bearing-plate 8, embedded flush with the surfaces of the walls 2 and 3, each plate having the basal inwardly-deflected arms 8', embedded flush with the surface of the sole, the whole being secured to the stock by suitable screws 9, as clearly indicated in the drawings. The rollers 6 are metallic, and being radially disposed—that is, at right angles to the arcs about which the walls 2 and 3 are described—they freely permit the reciprocation or riding of the plane over the curved surfaces that the blade is to act upon. The rollers of course offer sufficient resistance to the rough treatment to which they are subjected to afford complete protection to the sole along which they are disposed, the peripheral walls of the rollers extending slightly beyond the surface of the sole.

It is apparent that the rollers here described may be applied to other planes and tools than the one specifically mentioned in the present application.

Having described my invention, what I claim is—

In a plane a body portion or stock, a plane-sole therefor having inner and outer lateral bounding-walls forming a part of the stock, said walls being described along concentric arcs, a series of rollers disposed along the sole at right angles to the curved surfaces of the lateral walls, and located in suitable depressions formed in said sole-spindles 7, for each roller, bearing-plates 8, for receiving the spindles of the rollers, each plate being embedded in the lateral walls flush with the outer surfaces thereof, basal inwardly-deflected arms formed at right angles to said bearing-plates and embedded flush with the surface of the sole whereby a space is formed between said arms for the reception of the roller, and screws for securing the said plate and arms to the stock, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ISIDORE J. COCAYNE.

Witnesses:

EMIL STAREK,

ALFRED A. MATHEY.