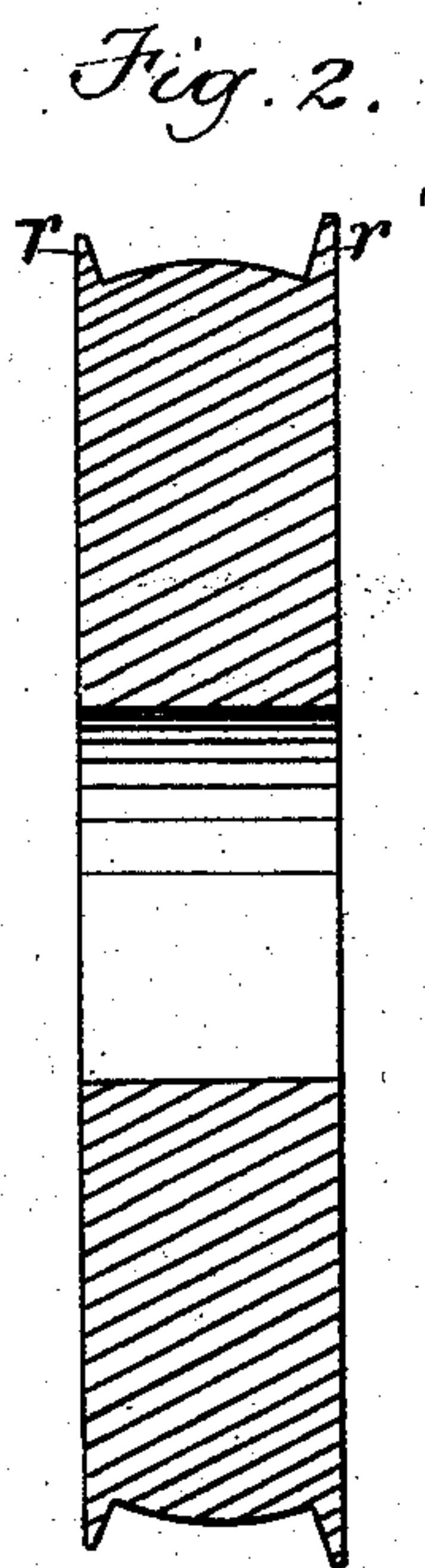
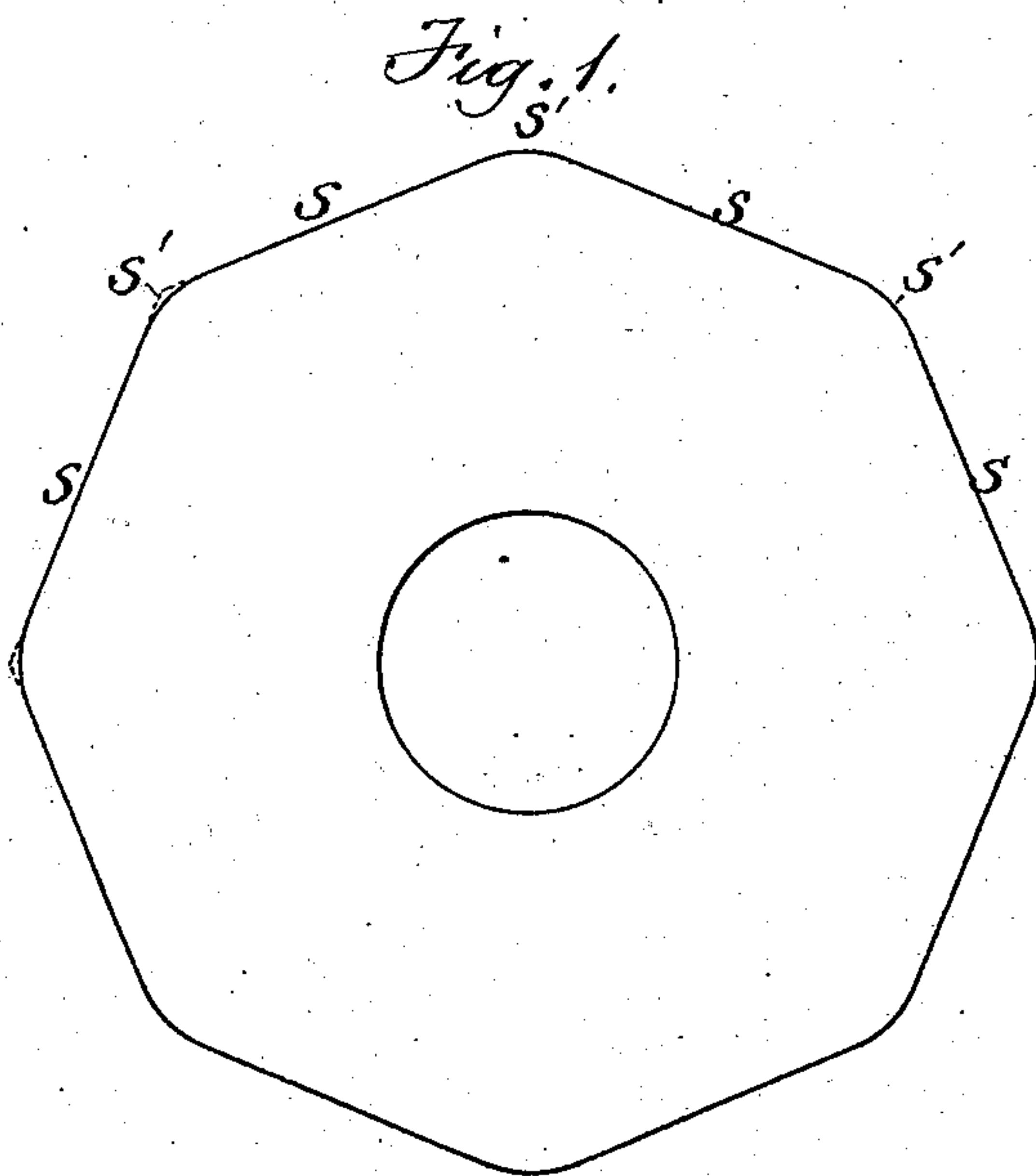


(No Model.)

A. E. STIRCKLER.
HEEL BURNISHING TOOL.

No. 292,597.

Patented Jan. 29, 1884.



Witnesses.
C. P. Judd
A. L. White

Inventor
A. E. Stirckler
by Wright & Brown
Attys

UNITED STATES PATENT OFFICE.

ALBERT E. STIRCKLER, OF WORCESTER, MASSACHUSETTS.

HEEL-BURNISHING TOOL.

SPECIFICATION forming part of Letters Patent No. 292,597, dated January 29, 1884.

Application filed November 12, 1883. (No model.)

To all whom it may concern:

Be it known that I, ALBERT E. STIRCKLER, of Worcester, in the county of Worcester and State of Massachusetts, have invented certain
5 Improvements in Heel-Burnishing Tools, of which the following is a specification.

This invention has for its object to provide an improved rotary tool for setting or burnishing the edges of boot and shoe soles and
10 heels; and it consists in a tool having its perimeter in the form of a polygon from which the angles have been removed or rounded, so as to form salient curved surfaces connecting the sides of the polygon, as I will now proceed
15 to describe.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a section of a rotary burnishing-tool, taken at right angles to the axis thereof. Fig. 2 represents a section on plane of line xx , Fig. 1,
20 showing a tool adapted to burnish a sole-edge.

The same letters indicate the same parts in all the figures.

In constructing my improved burnishing-tool I prepare a polygonal blank having any
25 desired number of sides s , and remove or reduce the angles so as to form salient curves or curved surfaces s' , each curve connecting two sides, s , so that the perimeter of the tool
30 in any plane at right angles to its axis is made up of alternating straight and curved surfaces, as shown. It will be seen that the curved surfaces s' project farther from the center of the tool than the central portions of
35 the intermediate straight surfaces; hence when the tool is rotated the said curved surfaces will act more forcibly than the straight surfaces on a sole or heel edge presented to the tool, and give a rapid series of blows or pressures
40 against said edge, and at the same time exert a rubbing or burnishing action thereon. The straight surfaces or sides s act as depressions between the acting curved surfaces s' , and permit a slight deposit between the rounded
45 or convex surfaces of wax or equivalent material applied to a heel or sole edge to facilitate the burnishing operation. The straight form of said surfaces s prevents the wax, blacking, or other material from being
50 embedded or packed solidly between the acting surfaces s' , and enables said material to

creep or move gradually along from one shoulder to the next, thus presenting the material removed from the heel or sole edge by one convex surface to the next succeeding convex
55 surface, the material being thus repeatedly supplied to the surface to be burnished. This function last described distinguishes my improved tool from ribbed burnishing-tools heretofore used, in which the burnishing-sur-
60 face is made up of alternate convex shoulders or acting-surfaces and intermediate re-entrant angles or recesses. In such tools the wax or other burnishing material accumulates in said re-entrant angles or recesses, and becomes
65 solidly packed therein, so as to entirely fill the recesses and give the tool a continuous curvature on its acting surface, thus defeating the object sought in forming ribs thereon. This objection does not apply to my improved
70 tool, as before stated.

The burnishing-surface may be curved or molded transversely, or in a plane parallel with the axis of the tool, to fit the curvature of the edge to be burnished.
75

In case the tool is intended for use on sole-edges, it may have a rand-lip, r , at one edge, and a lip or rest, r' , at the other edge, for the face of the sole, as shown in Fig. 2. The perimeter of said lips may be circular instead of
80 polygonal.

When the tool is adapted for heel-burnishing, it may have a lip or rest for the face of the top-lift.

It will be seen that the reduction or wear of
85 the curved surfaces s' , caused by the use of the tool, does not affect the operative relation of said curved surfaces to the straight surfaces s . The tool can therefore be worn down until the curved surfaces so encroach upon the straight
90 surfaces as to make the perimeter of the tool practically circular before its usefulness is impaired.

I claim—

1. A rotary burnishing-tool having a pe-
95 rimeter composed of a number of surfaces, s , which are straight in a plane at right angles to the axis of the tool, and intermediate salient curves or convex surfaces, s' , connecting said surfaces s , substantially as shown and
100 described.

2. A rotary burnishing-tool having its

working perimeter composed of surfaces s ,
which are straight in planes in the direction
of the circumference of the tool, said planes
being connected by curved surfaces s' , and
5 having lips, as r or r' , at the edge of the tool,
substantially as set forth.

In testimony whereof I have signed my name

to this specification, in the presence of two
subscribing witnesses, this 29th day of Octo-
ber, 1883.

ALBERT E. STIRCKLER.

Witnesses:

M. B. TOWNSEND,

C. F. BROWN.