

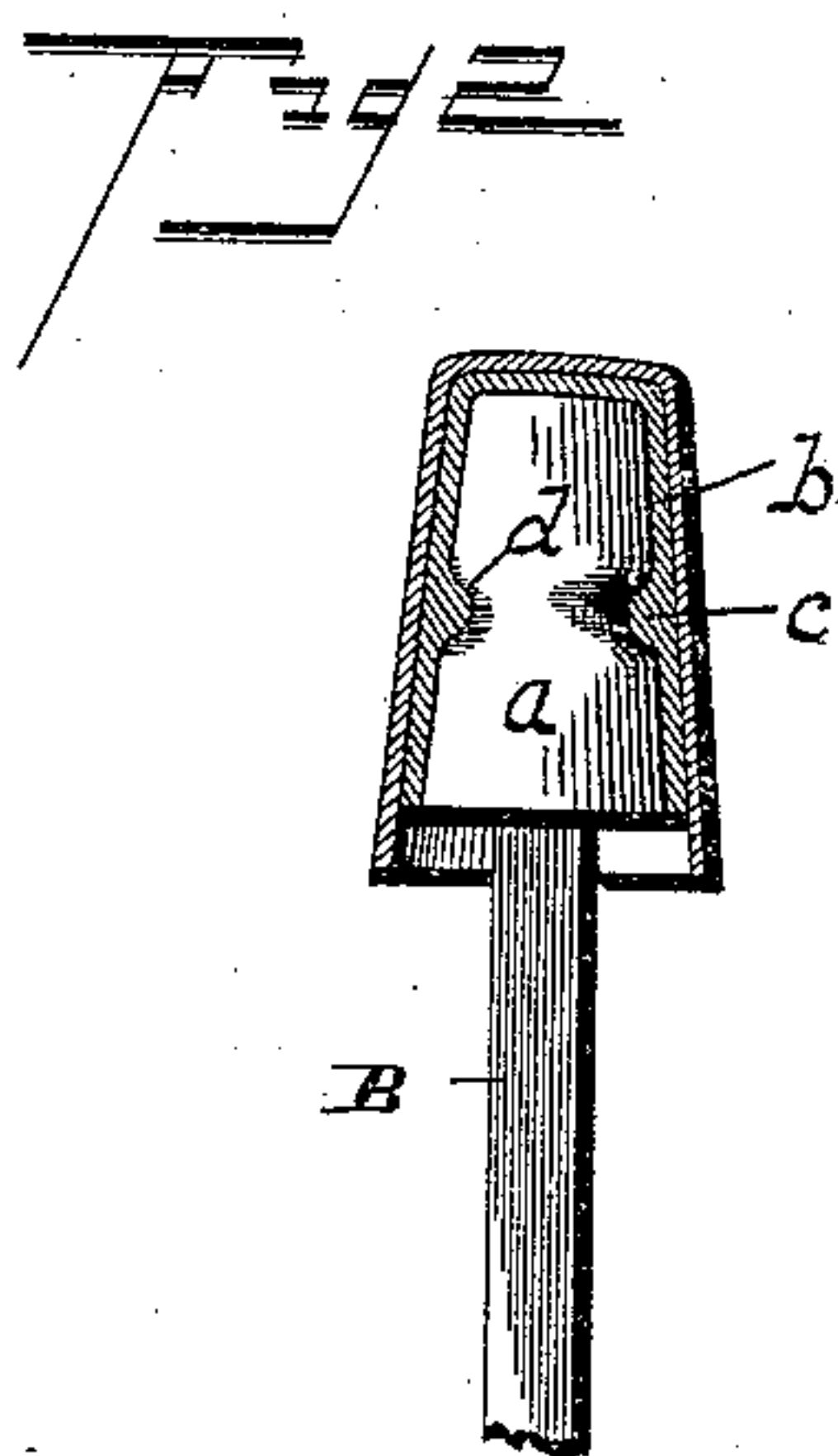
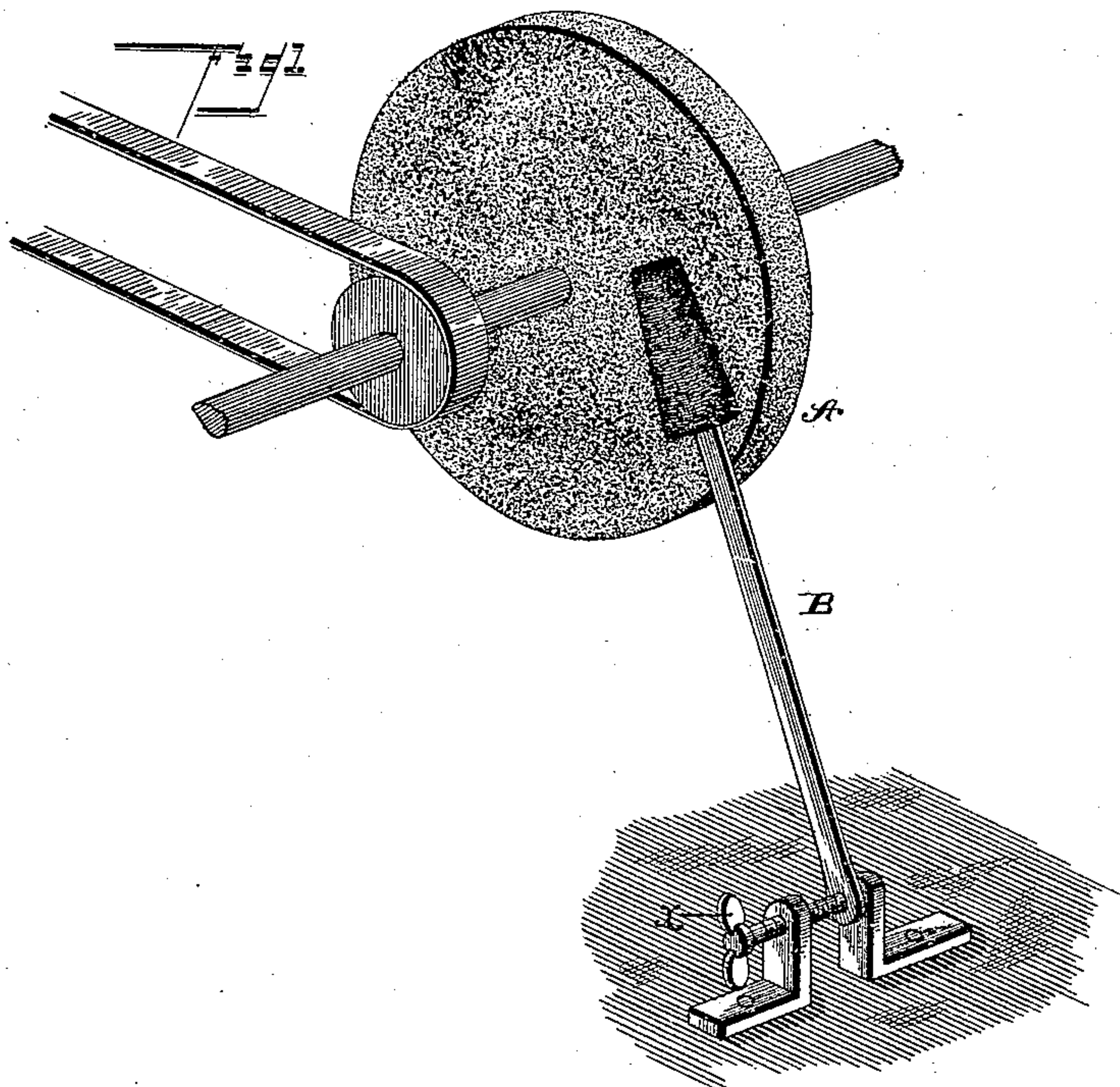
(No Model.)

O. M. SMITH.

METHOD OF DECORATING METALLIC SURFACES.

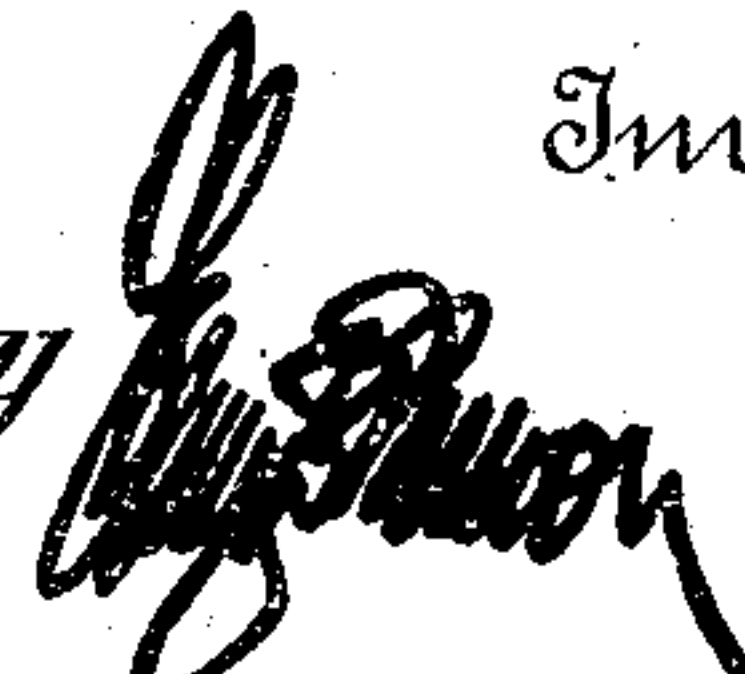
No. 446,300.



Patented Feb. 10, 1891.



Orrin M. Smith.

Inventor

by  Attorney

Witnesses



UNITED STATES PATENT OFFICE.

ORREN M. SMITH, OF PHILADELPHIA, PENNSYLVANIA.

METHOD OF DECORATING METALLIC SURFACES.

SPECIFICATION forming part of Letters Patent No. 446,300, dated February 10, 1891.

Application filed August 21, 1890. Serial No. 362,678. (No model.)

To all whom it may concern:

Be it known that I, ORREN M. SMITH, a citizen of the United States of America, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in the Method of Ornamenting Umbrella Furniture; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to an improved method of decorating metallic surfaces of manufactured articles, the same being especially designed for ornamenting ferrules, runners, and other parts of umbrella furniture; and it consists in the method or process claimed and in the employment and combination of a rotary wheel having an indenting-surface and a yielding holder for the article, said holder being so constructed that the article may have a vibratory and rotary movement to and from the wheel.

In carrying out my invention I use an indenting-wheel, preferably of emery, and a holder shaped to receive the article to be decorated and hold said article slightly in contact with the surface of the wheel.

In the accompanying drawings, forming part of this specification, Figure 1 is a diagram view, and Fig. 2 is a detail sectional view, of the upper portion of the holder with an umbrella-ferrule thereon.

A refers to the indenting-wheel, which is preferably of emery, the said wheel being rotated in any desirable manner. Adjacent to the wheel is a frame which supports a rod B, shaped at its upper end to receive a ferrule, runner, or cap. This rod B is preferably made up of a thin plate of metal and can be adjusted to and from the surface of the wheel by means of a set-screw *x* or other equivalent appliance, a portion of said holder being thin, so as to hold the article placed thereon in slight spring contact with the in-

denting-wheel. The upper end of this holder is provided with a head *a*, having a metal covering *b* secured thereon by an inner annular enlargement *c*, engaging a groove *d* in the head, the article resting freely on covering *b*, so that it can have a rotary movement.

In operation the article to be decorated is placed on the holder and the same is adjusted to bring the surface thereof slightly in contact with the indenting-wheel, and when said wheel is rotated its contact with the article will cause the same to revolve and indent it to present a roughened surface of peculiar luster without removing or cutting away the material of the article. The pressure of the article against the wheel should be such as to merely indent the surface of the article while the latter is being rotated, and this result is in part obtained by the yielding support, which permits the article under the action of the moving wheel to rapidly contact with and recede from the same.

It is obvious that several holders may be arranged in proximity to the indenting-wheel, and that either the face or sides of the latter may be used. In decorating articles having curved faces a wheel with raised surfaces may be employed.

I am aware that prior to my invention it has been common in the art of metal decoration to ornament the metal surfaces by stippling to provide the metal with a matted surface, said decoration being applied either mechanically by suitable brushes or chemically by acids.

My method of decorating is entirely mechanical, very rapid, and the surface of the metal indented, but not cut away or removed, the indentations giving thereto an effect different from what is produced by any means known to me, the appearance being similar to that of the sheen of silk. After the article is thus indented it may be further ornamented by having relief-bands cut thereon.

I claim—

1. The method or process herein described of decorating metallic surfaces, consisting in holding the article to be decorated in yielding contact with a revolving indenting-wheel, so

that said article is given a vibratory and rotary motion by said indenting-wheel, for the purpose set forth.

2. In combination with an indenting-wheel,
5 a yielding holder adapted to hold an article in contact with the surface of said wheel, so that the article is given a rotary and a vibratory movement, substantially as set forth.

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

ORREN M. SMITH.

Witnesses:

JOHN W. SPROWLES,
ROBERT WINTERBOTTOM.