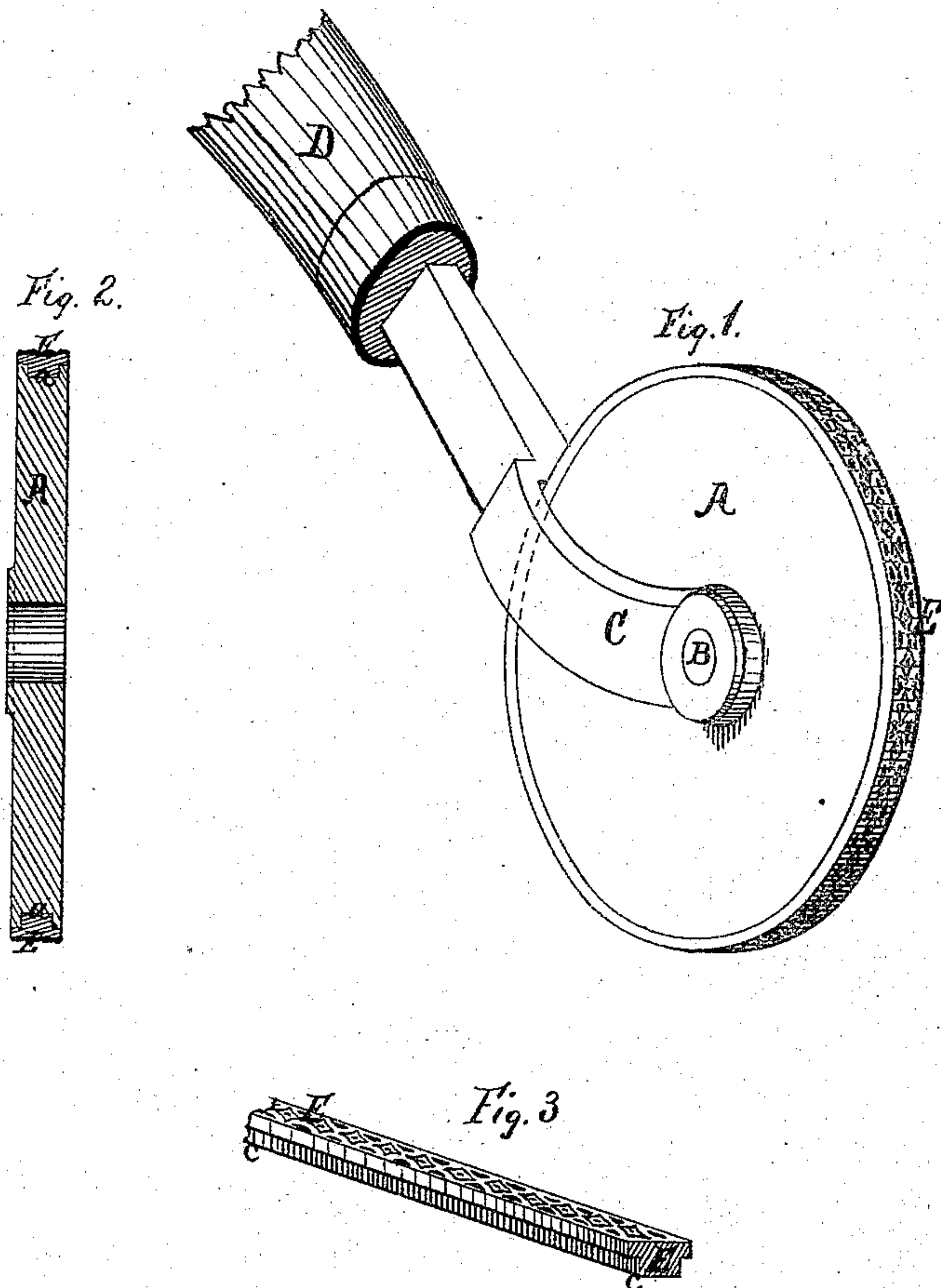


**D. J. SKELTON & M. FEELY.**  
**Book-Binders' Finishing-Rolls.**

No. 156,678.

Patented Nov. 10, 1874.



WITNESSES:-

*M. M. Whipple*  
*T. D. Beecher*

INVENTORS

*Daniel J. Skelton*  
*Michael Feely*

# UNITED STATES PATENT OFFICE.

DANIEL J. SKELTON, OF BROOKLYN, AND MICHAEL FEELY, OF NEW YORK, N. Y.

## IMPROVEMENT IN BOOK-BINDERS' FINISHING-ROLLS.

Specification forming part of Letters Patent No. **156,678**, dated November 10, 1874; application filed February 20, 1873.

*To all whom it may concern:*

Be it known that we, DANIEL J. SKELTON, of the city of Brooklyn, in the State of New York, and MICHAEL FEELY, of the city and county of New York, in said State of New York, have invented a new and useful Improvement in Book-Binders' Finishing-Rolls; and we hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, which forms part of this specification.

This invention relates to an improvement in rollers used by book-binders for embossing and gilding their work.

Our invention consists in the combination, with the roller of a book-binder roll, of a belt, cast in the form of a strip, with the intended pattern or design on its face side, which strip is afterward secured to the roller after the fashion of a tire to a wheel, whereby we are enabled to produce a substantial and durable roll at an infinitely less cost than engraved rolls.

In the accompanying drawing, Figure 1 is a perspective view of our improved roll. Fig. 2 is a vertical central section through the same. Fig. 3 is a perspective view of the cast pattern or design before the same is applied to the roll.

A designates a revolving metallic wheel, which is fitted to turn on an arbor, B, passing through its center, and through a carriage, C, and secured by a screw, which tightens on being turned in the same direction as that in which the wheel revolves when the device is in use. In the present instance it is a left-handed screw. The carriage C carries a handle, D, which is usually made of a suitable length to bear against the shoulder of the operator when the device is in use, so that the latter may be driven and steadied by both the shoulder and hands. The periphery of this wheel has a groove, *a*, cut around it, which may be of any suitable shape, the object of which will be presently explained. E is a metallic strip or belt, carrying on its face side a design or pattern. It is preferably of a width to correspond with the width or thickness of the

wheel A, and, in the present instance, it is provided with a projection, *c*, designed to fit into the groove *a* of the wheel. We prefer to make this pattern-belt E of compression bronze, for, with this metal, we can obtain a design with clear, sharp lines. This pattern-belt is cast in a strip of any desired length, and it is then easily bent circular or like a ring, so as to fit upon and around the wheel A.

To attach the pattern-belt when constructed with a dovetailed projection, *c*, as described, the said projection is placed in the groove *a*, and then the metal of the wheel at the edge thereof is pressed against the projection *c*. This will secure the pattern-belt firmly in proper place, as will be clearly understood by reference to the several figures of the drawing.

By this novel method of constructing a book-binder's roll a substantial, firm, and durable article is obtained at a much less cost than by the methods of construction heretofore existing.

Any suitable metal may be used for making the wheel and pattern-belt; but, inasmuch as the rolls are intended to be heated before being used, the wheel and pattern-belt should be made of substantially the same composition, or the one should have the same coefficient of expansion with respect to heat as the other.

We do not limit ourselves to the method shown of securing the cast pattern-belt to the rotating wheel. Our invention comprehends the combination of a belt provided with a cast pattern on its face side with a revolving wheel, said parts being so secured together that the whole device, when complete, is as firm and durable as it would be if made from a single piece of metal.

We are aware that it is not new to make the roller of a book-binder's roll in two pieces—a disk and an annular type-plate secured to such disk; but in such case the design or pattern is engraved in the usual manner upon the face of the type-plate, and hence costs little less than the old style of engraved rolls. We are also aware that embossing-cylinders have been made with separate tolls—like type—applied to the outside of the cylinder,



and we therefore make no claim to such devices.

What we claim as our invention, and desire to secure by Letters Patent, is—

In a book-binder's roll, the combination, with the wheel or roller A, of a metallic belt or tire, E, cast in the form of a strip, with the desired pattern or design on one side, and

afterward permanently attached to the periphery of the said wheel, substantially as herein specified.

DANIEL J. SKELTON.  
MICHAEL FEELY.

Witnesses:

M. M. LIVINGSTON,  
T. B. BEECHER.