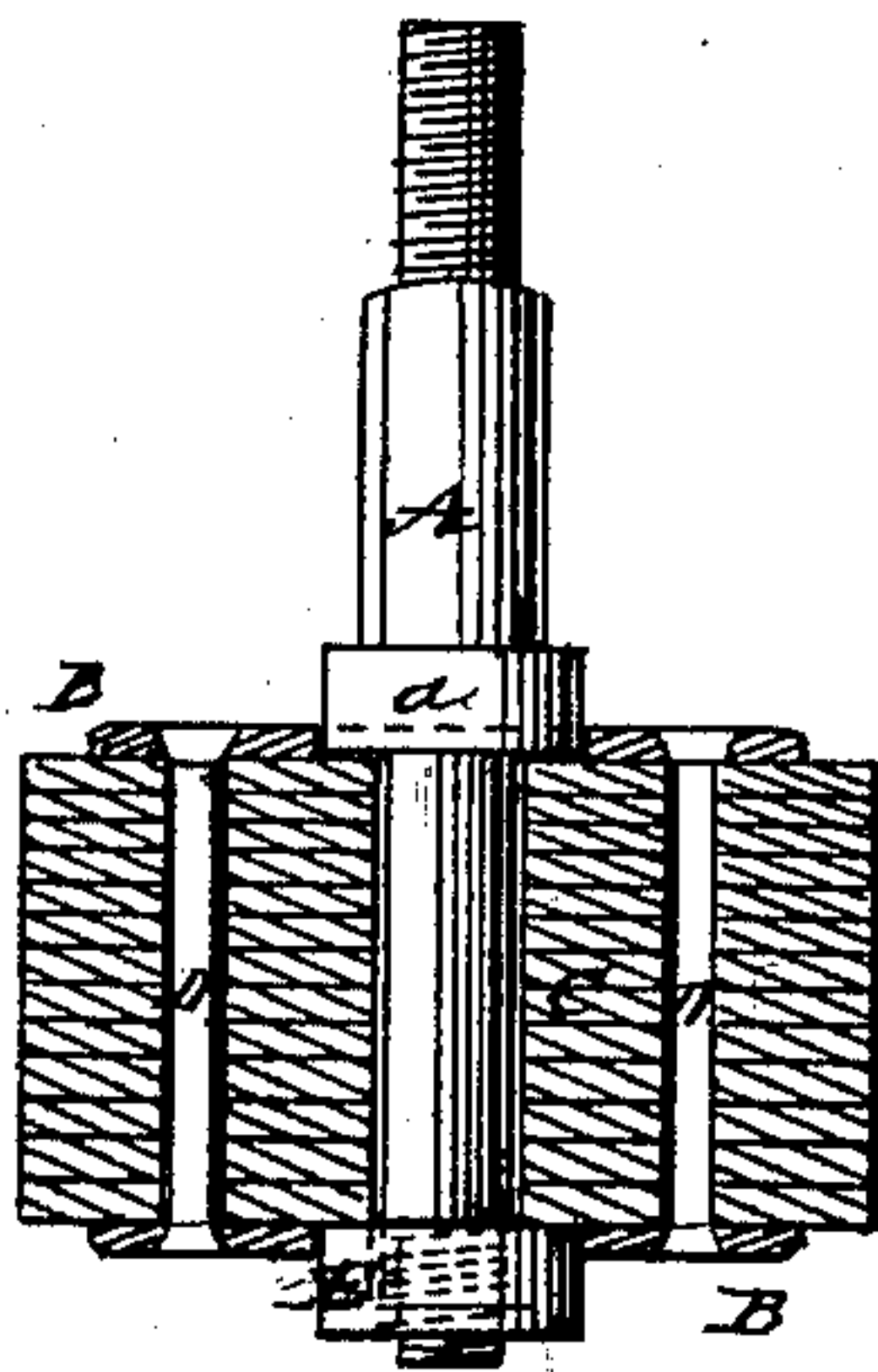


F. A. STERRY.  
ANTIFRICTION ROLL.

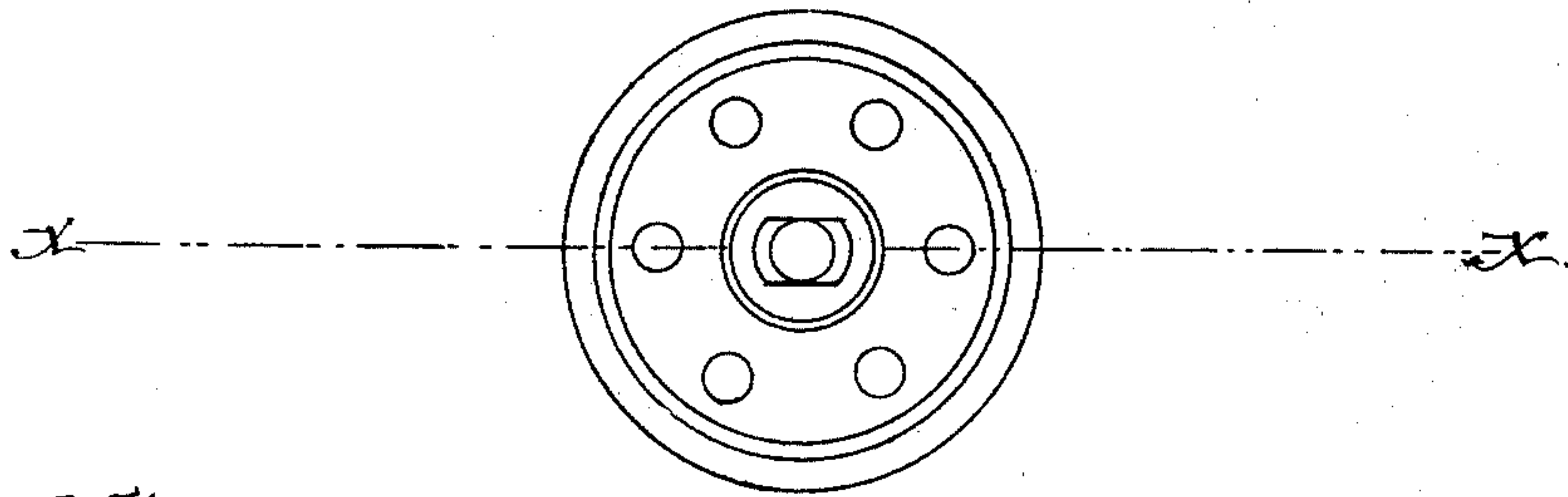
No. 78,153.

Patented May 19, 1868.

*Fig. 1.*



*Fig. 2.*



*Witnesses*  
*Thos. Gusch*  
*J. A. Service.*

*Inventor;*  
*Francis A. Sterry*  
*Per* *Wm. L. Dwyer*

# United States Patent Office.

FRANCIS A. STERRY, OF CANTON, MASSACHUSETTS.

*Letters Patent No. 78,153, dated May 19, 1868.*

## IMPROVEMENT IN ANTI-FRICTION ROLL.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, FRANCIS A. STERRY, of Canton, in the county of Norfolk, and State of Massachusetts, have invented a new and improved Anti-Friction Roller; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to a new material for the construction of friction-rollers for trucks, casters, &c.; and the invention consists in using raw hide instead of wood or metal for the roll.

Figure 1 represents a central section of the roll through the line *x x* of fig. 2.

Figure 2 shows a side view.

Similar letters of reference indicate like parts.

The roll is constructed or put together very much as is the wooden roll for the trucks used for looms and other purposes. But for the wood or metal I substitute raw hide, cut out in suitable-sized disks, and fastened together, and held firmly in place by plates of metal, as shown in the drawing, or by screws or rivets, with or without plates, as may be deemed best.

A represents the shaft, upon which the roll turns.

B represents the metallic plates.

C is the raw hide.

D the rivets, and

E the screw-nut on the end of the shaft.

The raw hide is properly prepared by being soaked or saturated with oil or some oleaginous matter, and then the disks are clamped together, as represented in the drawing, in which condition it is bored and turned for use. It revolves between the collar *a* on the shaft and the nut E.

The clamping-plates B are annular in form, and the interior portions surround the collar and the nut, but do not touch them, consequently there are no metallic surfaces in contact to create friction.

The raw-hide roll, prepared as above described, requires no lubricating, and works noiselessly in all situations, and the nature of the material renders it vastly more durable than either metal or wood.

I propose to use them for various purposes, or wherever anti-friction rolls are desirable, and also for sheaves in pulleys and tackle-blocks.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

As a new article of manufacture, a self-lubricating wheel for pulleys, sheaves, &c., constructed as described, consisting of the plates of raw hide C, soaked in oil, revolving upon the shaft A, and held in position by means of the rivets D and metallic plates B, as herein described, for the purpose specified.

The above specification of my invention signed by me, this 21st day of November, 1866.

FRANCIS A. STERRY.

Witnesses:

WM. F. McNAMARA,  
ALEX. F. ROBERTS.