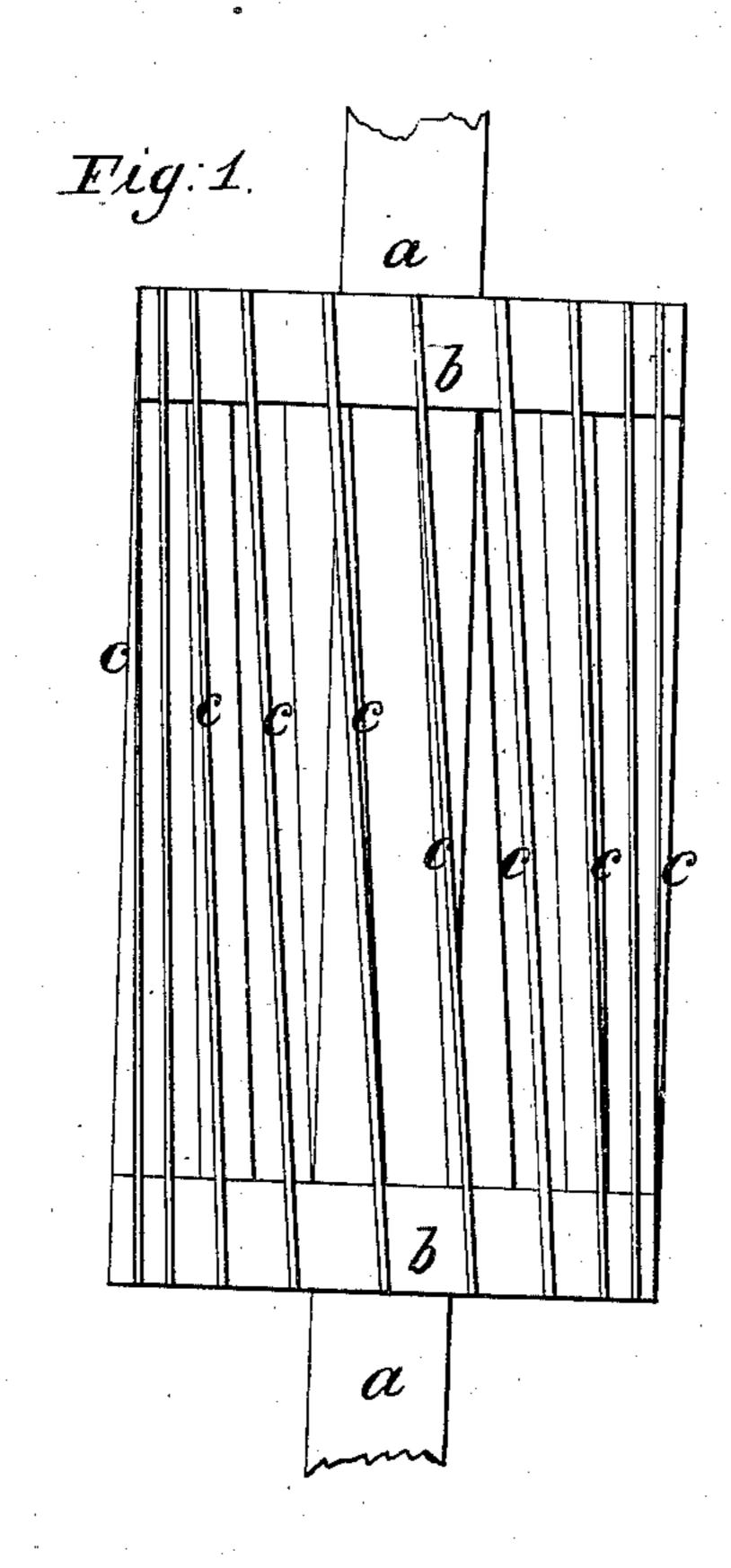
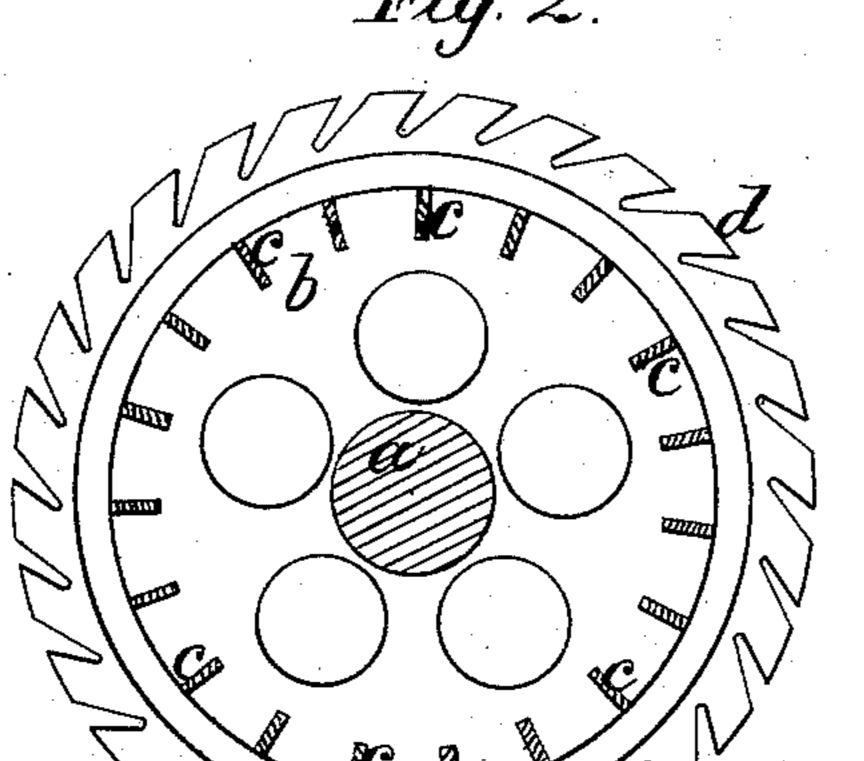
## C. L. Goddard. Wool Burring Mach. N:56,037. Patented Jul. 3,1866.





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Inventor C.L. Goddand

## United States Patent Office.

C. L. GODDARD, OF NEW YORK, N. Y.

## IMPROVEMENT IN WOOL-BURRING MACHINES.

Specification forming part of Letters Patent No. 56,037, dated July 3, 1866; antedated June 19, 1866.

To all whom it may concern:

Be it known that I, C. L. Goddard, of the city, county, and State of New York, have invented a new and useful Improvement in Cylinders for Wool-Burring Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a view of the skeleton of the cylinder ready to receive the burring-rings, and Fig. 2 a cross-section thereof with the burring-rings on.

The same letters indicate like parts in all

the figures.

My said invention relates to an improvement in the construction of cylinders for burring-machines; and the objection of my said invention is to produce a cylinder which shall not spring under the influence of centrifugal force when rotated at high velocities, nor yield to the forces applied, which shall not warp under the influences of atmospheric changes, and which shall be light and cheap. These properties it is well known are very desirable in cylinders for burring-machines.

In the accompanying drawings, a represents a shaft with heads b b secured thereon or cast therewith, as may be desired. I prefer to make the heads of open work, as represented. Into the periphery of these heads, which are properly turned to the required

diameter, I cut a series of slots at equal distances apart and to a depth radially of about one-fifth the radius, and into these slots are inserted and secured a series of bars, c, made of strips of sheet metal. They will hold sufficiently by being driven into the slots. These bars should be at equal distances apart and parallel; and I prefer to have them oblique to the axis of the shaft, as represented, although they may be parallel with the said axis. After the bars have been inserted their outer edges are reduced in a lathe, so that all of them shall be segments of one and the same cylinder, and form a skeleton for the reception of the burring-rings d.

In this way and at very little cost I am enabled to produce cylinders for burring-machines which will not spring or warp, and which will be cheaper, lighter, and more durable than as heretofore made.

What I claim as my invention, and desire

to secure by Letters Patent, is-

The manner of constructing inner or skeleton cylinders for burring machines of thin bars or strips of metal inserted in slots in the heads on the shaft, substantially as and for the purpose described.

C. L. GODDARD.

Witnesses:

ANDREW DE LACY, WM. H. BISHOP.