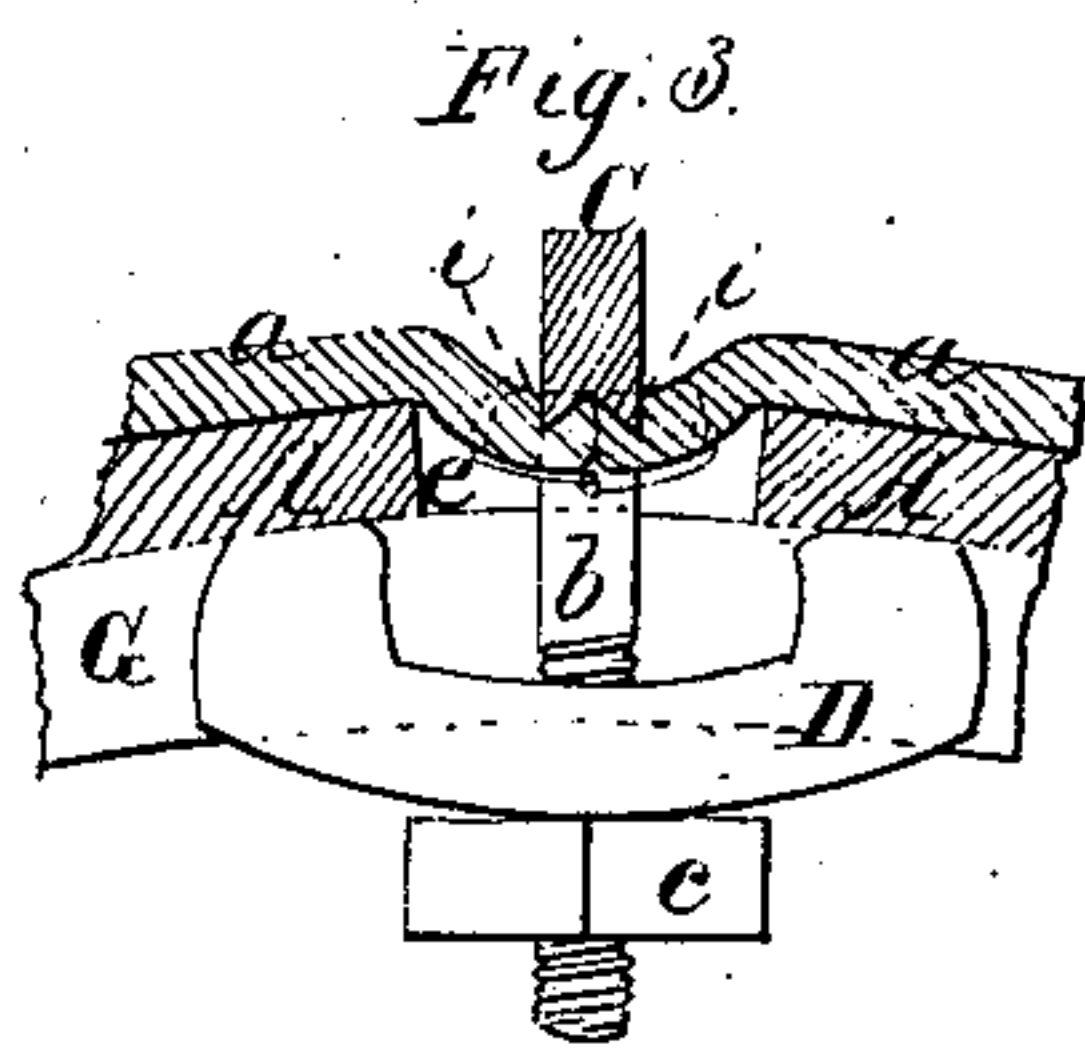
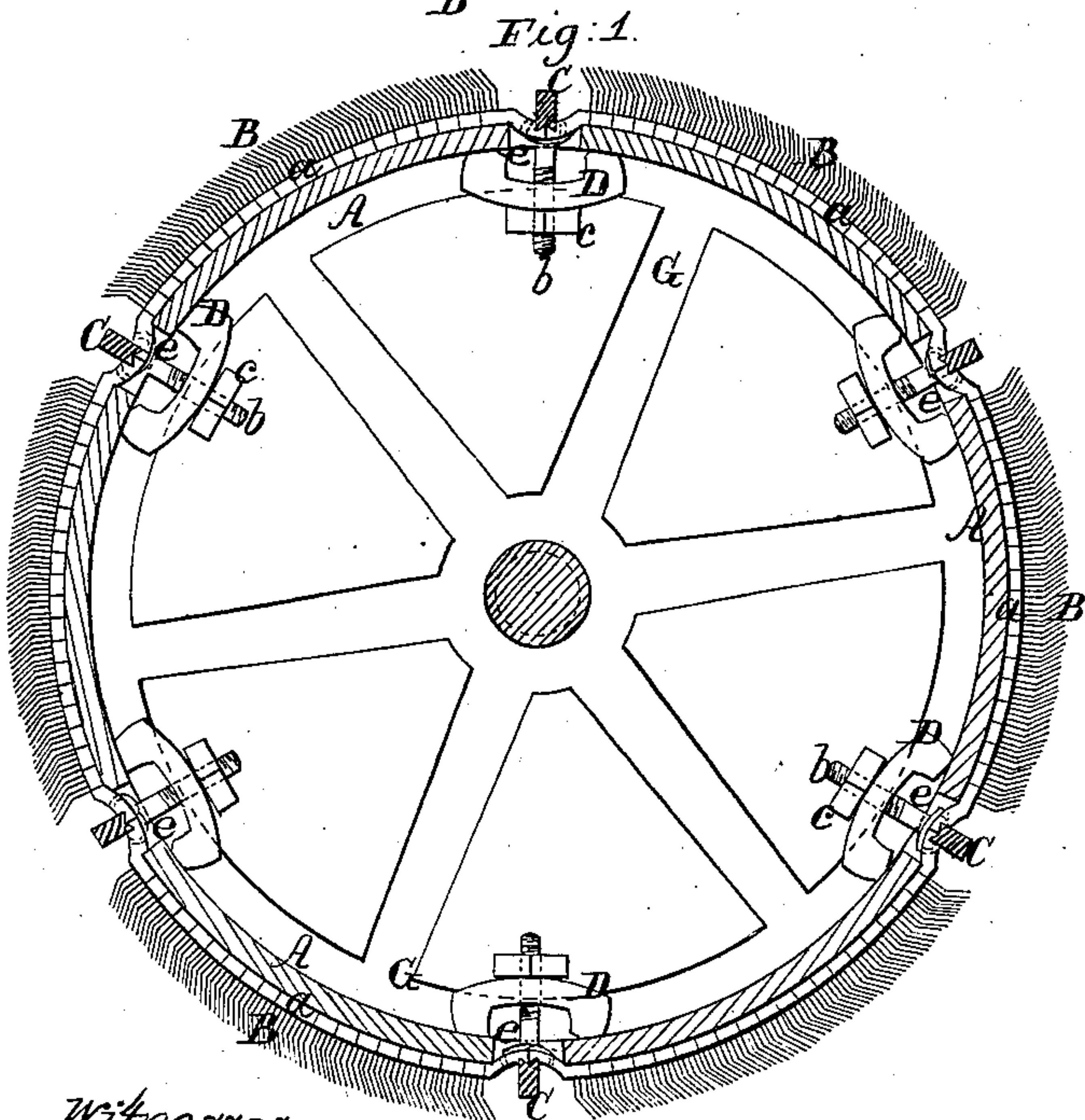
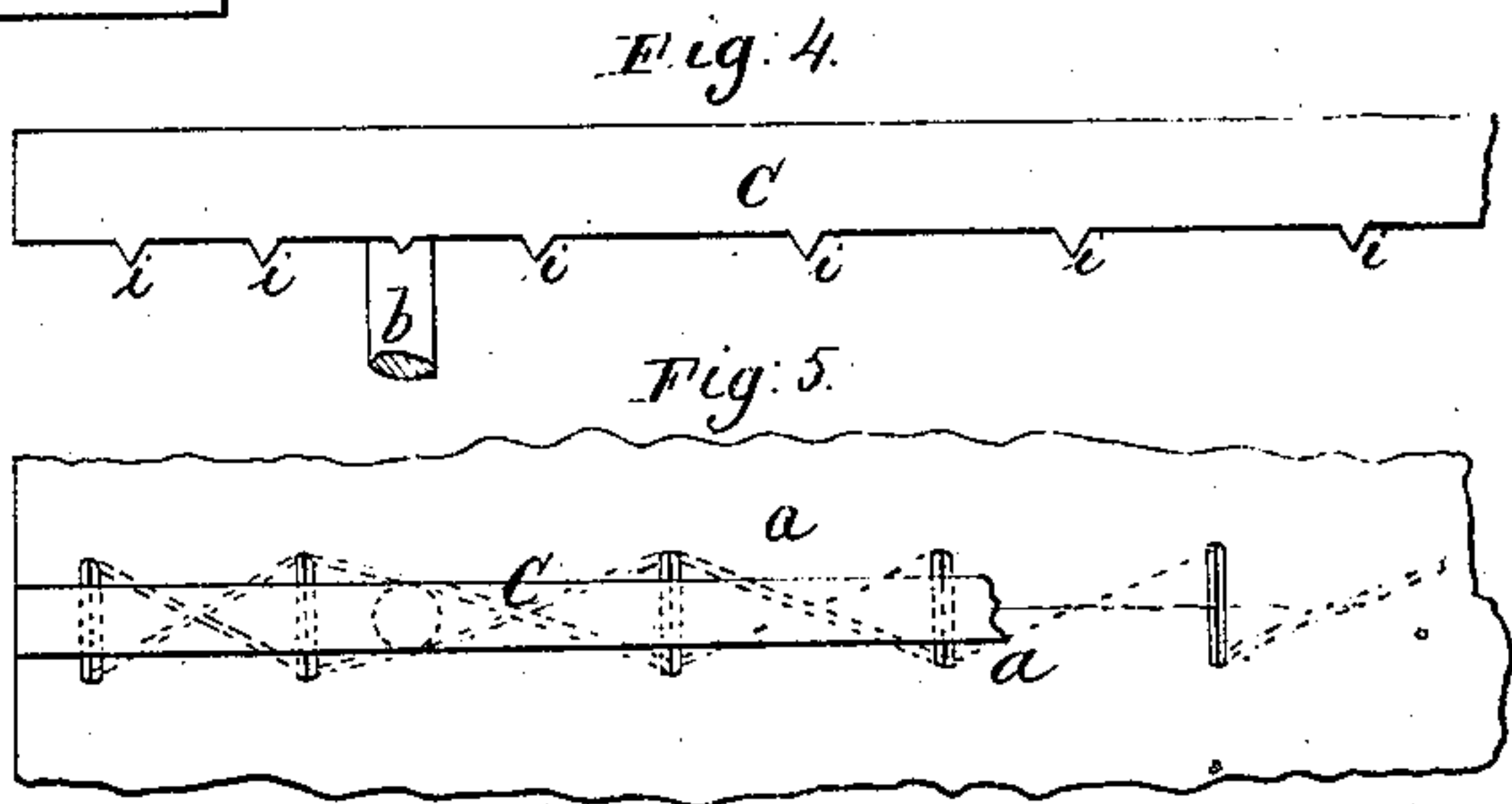
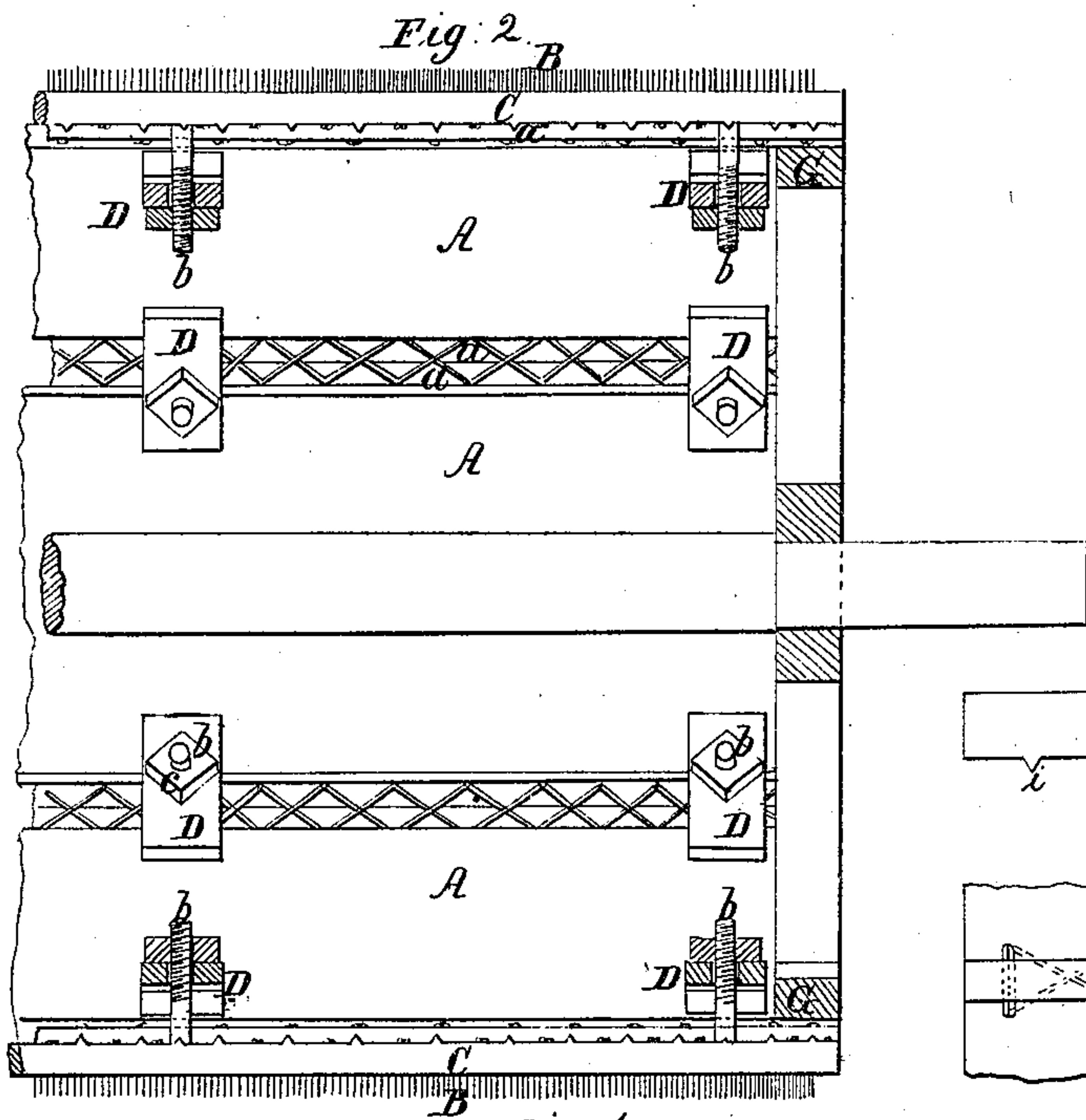


D. H. Rowe.
Card Fastener.

N: 85,133.

Patented Dec. 22, 1868.



Witnesses

R. T. Campbell
J. H. Campbell

Inventor

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DANIEL H. ROWE, OF PANA, ILLINOIS.

Letters Patent No. 85,133, dated December 22, 1868.

IMPROVEMENT IN ATTACHING CARD-CLOTHING TO CYLINDERS OF CARDING-ENGINES

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, DANIEL H. ROWE, of Pana, in the county of Christian, and State of Illinois, have invented a new and improved Mode of Applying Card-Clothing to Cylinders of Cotton and Woollen-Carding Engines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a cross-section through a carding-cylinder having its card-clothing secured upon it by my improved device.

Figure 2 is a diametrical section through one end of such cylinder.

Figure 3 is an enlarged sectional view in detail of the fastening.

Figures 4 and 5 are views in detail of the fastening-bar.

Similar letters of reference indicate corresponding parts in the several figures.

The object of this invention is to provide for applying card-clothing to the cylinders of cotton and wool-carding engines, in such manner that it can be held firmly and smoothly thereon, and also tightened at pleasure, without removing it from its cylinders.

The nature of my invention consists in the employment of one or more tightening-bars, applied to the card-clothing opposite longitudinal slots or channels formed in the periphery of a cylinder, and in providing such bar or bars with clamping-devices, which are applied upon the inner side of the cylinder, whereby they can be so acted upon as to draw portions of the card-clothing, more or less, into said slots or channels, and thus tighten this clothing and hold it firmly under any required degree of tension, as will be hereinafter explained.

To enable others skilled in the art to understand my invention. I will describe its construction and operation.

In the accompanying drawings—

A represents a portion of a carding-engine cylinder, which may be made of wood or metal, in the usual well-known manner, with the exception that the strips or pieces forming the body of this cylinder are secured to its heads, G, so as to leave narrow spaces, *e*, between them, extending from one end to the other of the cylinder, and in lines parallel to the axis thereof, as shown in the drawings.

The card-clothing, B, is composed of strips, *a*, having the card-teeth applied in any suitable manner, which strips are laced, stitched, or riveted together along their longitudinal edges, so as to form a cylinder of cards, which is somewhat larger in diameter than the cylinder A, so as to be easily applied to or removed therefrom.

The drawings represent the card-strips *a* somewhat wider than the width of the segments or staves forming the body of the cylinder, so that the seams or

meeting-edges of the card-strips lie centrally between the edges of the said segments.

OC represent straight bars, which are equal in length to the card-strips upon the cylinder, and which are somewhat wider than thick.

The strips have spurs, *i i*, formed on those edges lying next the cards, which spurs are arranged at proper distances, and bevelled, as shown in fig. 3, so that opposite spurs penetrate opposite edges of the backing *a*, and operate to confine these edges together during the act of stretching the clothing B, and while it remains on the cylinder under tension.

It is not expected that the said spurs *i i* will alone prevent the edges of the card-strips from parting, and for this reason those edges are stitched, laced, or riveted together. The teeth or spurs *i i* serve as auxiliaries to the other fastening.

At suitable distances along the spurred edge of the bar C, and at right angles thereto, are short rods, *b*, having screw-threads cut upon them for receiving clamping-nuts *c*.

In applying the bars C to the card-clothing upon the cylinder A, the rods *b* are passed between the edges of the clothing-strips *a*, between the cylinder-staves or segments, and through bridge-pieces D, as clearly shown in figs. 1, 2, and 3. When this is done, the nuts *c* are secured upon rods *b*, and set up tightly against the said bridge-pieces, thereby drawing the bars C and portions of the card-clothing, more or less, into the longitudinal spaces *e*, as shown in figs. 1 and 3.

During the act of stretching the card-clothing upon the periphery of the cylinder, by setting up the nuts *c*, as described, the spurs *i* will penetrate the edges of the card-strips *a*, and thus prevent these edges from parting.

Card-clothing applied to cylinders in this manner can be removed, loosened, or tightened at pleasure. It can be drawn as tight as the material of which the backing is made will bear, and it can be adjusted so as to lie smoothly on the cylinders, any inequality in the clothing being compensated for by setting up some one or more of the nuts of each gripping-bar C more than others.

Having described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. Tightening-bars C, applied by means of clamping-devices to the card-clothing opposite longitudinal spaces in the periphery of a cylinder, substantially as described.

2. The mechanism, substantially as described, or its equivalent, for tightening card-clothing upon a carding-engine cylinder, and which will depress portions of such clothing toward the axis of such cylinder.

DANIEL H. ROWE.

Witnesses:

LAWRENCE BURGET,
WELLINGTON W. BOBIER.