

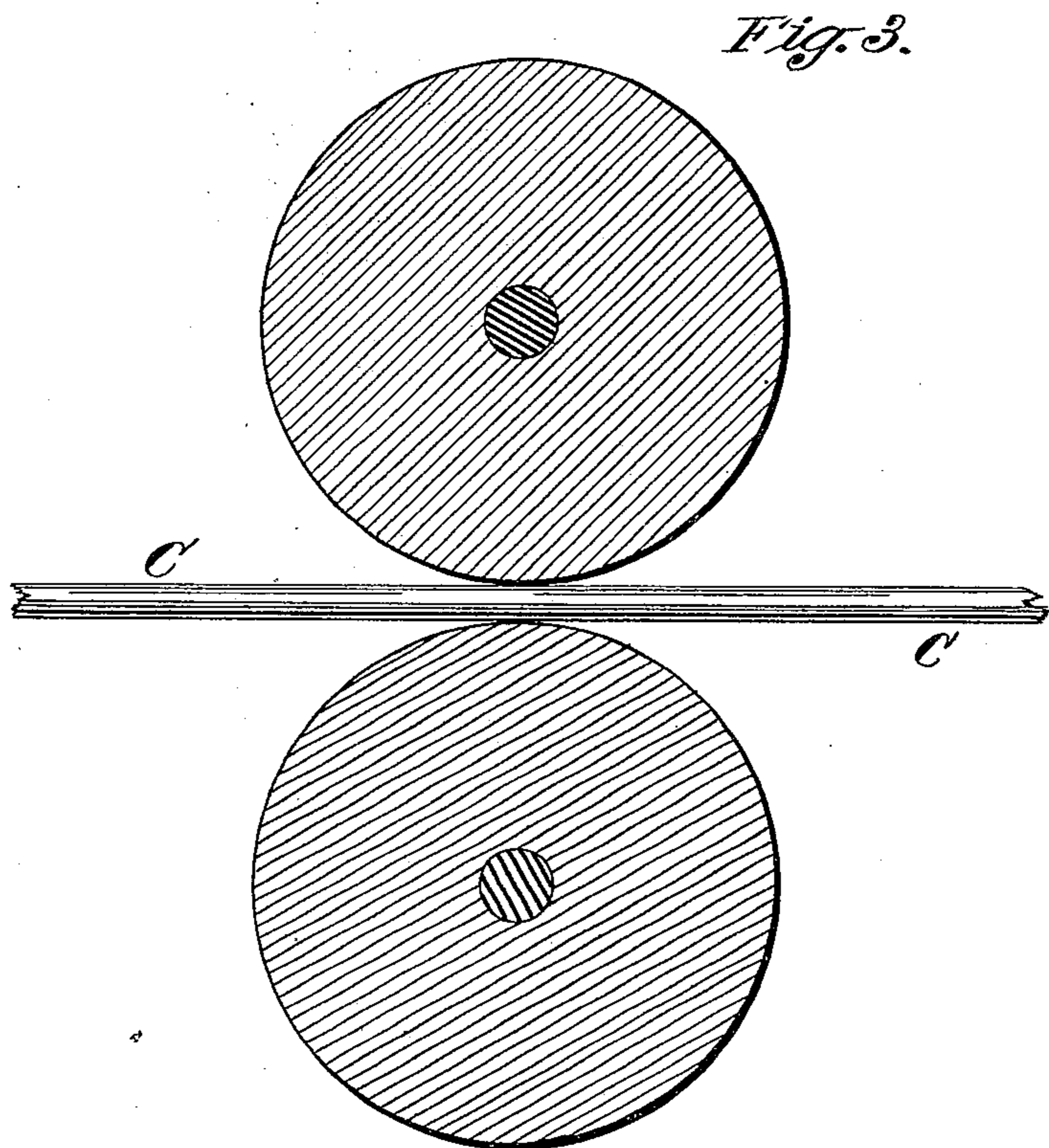
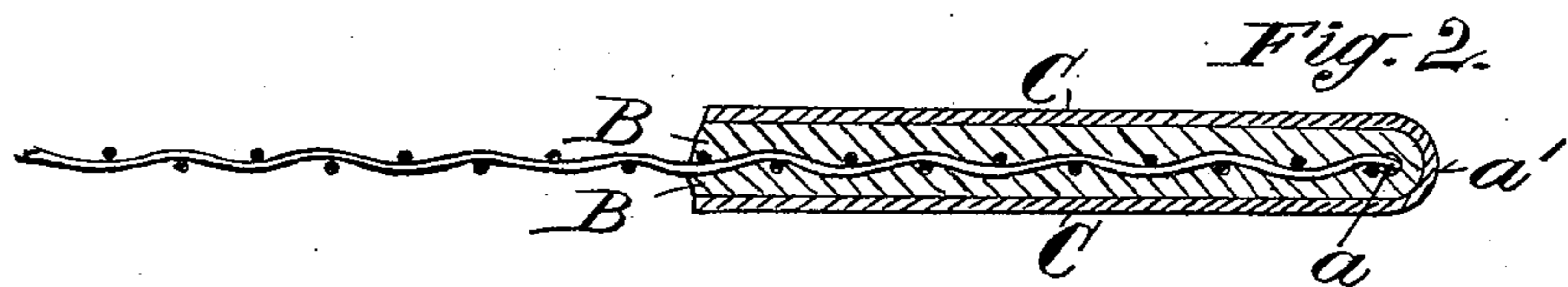
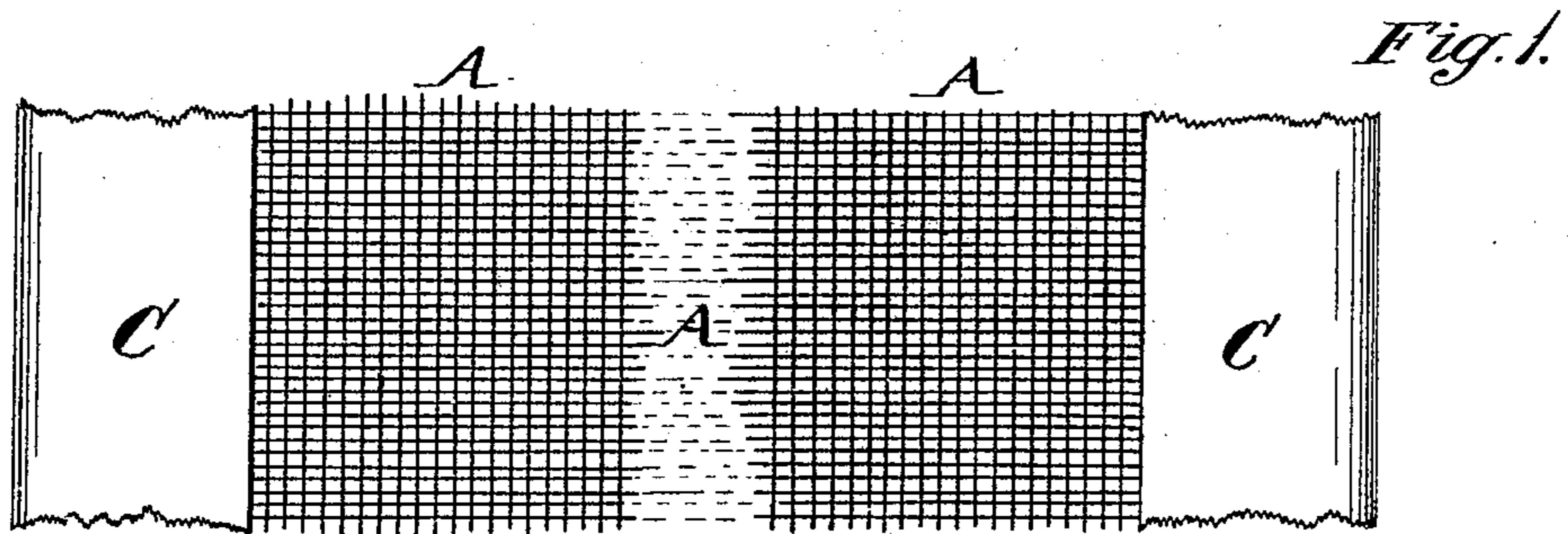
(No Model.)

S. O. BRIGHAM.

BOLTING AND SIEVE FABRIC AND METHOD OF MAKING THE SAME.

No. 265,302.

Patented Oct. 3, 1882.



Witnesses

Robert W. Matthews

Thomas E. Crossman

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# UNITED STATES PATENT OFFICE.

SILAS O. BRIGHAM, OF NEW YORK, N. Y.

BOLTING AND SIEVE FABRIC AND METHOD OF MAKING THE SAME.

SPECIFICATION forming part of Letters Patent No. 265,302, dated October 3, 1882.

Application filed April 25, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, SILAS O. BRIGHAM, of the city, county, and State of New York, have invented certain Improvements in Bolting and Sieve Fabrics and Method of Making the Same, of which the following is a specification.

This invention is more particularly designed to provide a bolting cloth, either of silk, wire, or other suitable material, which shall be capable of attachment to the ribs of a bolting-reel with much greater security against injury to the fabric or material than has hitherto been attained, the invention being also capable of advantageous application to the shaking-sieves, purifiers, &c., variously used in milling, and also to sieves used for or applied to other purposes.

The invention comprises certain novel combinations of parts, and also a novel method or process of making or manufacturing the same.

Figure 1 is a plan view, representing the article embraced in my said invention. Fig. 2 is a transverse sectional view of the same on an enlarged scale, and Fig. 3 is a diagram illustrating the manner in which the parts comprised in the said articles are united.

A is the bolting fabric—in other words, the sifting fabric—which may be silk or ordinary bolting-cloth, or preferably of wire-cloth of suitable mesh or character of wire. This cloth or fabric, whatever its character, as aforesaid, may be made in pieces or strips of any suitable length, and when the same is to be applied to a bolting-reel should be of such width that one of its longitudinal edges will rest upon one of the ribs of the reel, while the opposite longitudinal edge rests upon one of the adjacent ribs, and so on. Each longitudinal edge *a* has placed upon each side a longitudinal strip, B, of sheet india-rubber. These strips may, when desired, be made in one piece folded so that one portion is above and the other below the fabric.

Placed over the strips B, of india-rubber—that is to say, upon the external surface of the india-rubber strips—is a piece of cloth, C, which may be folded around the edge, as shown at *a'*. This cloth is preferably that commonly known as “ticking;” but any other cloth of suitable strength and flexibility may be used.

The parts, being arranged as just set forth,

are passed between rollers under conditions which subject the india-rubber to the action of heat as well as pressure, the result being that the two strips B, of india-rubber, have their inner surfaces firmly cemented together through the interstices of the fabric, while each individual thread or wire of the latter is embedded in and firmly retained by the india-rubber embedded thereon, the fabric being simultaneously firmly cemented to the outer surface of the india-rubber by the combined action of the heat and pressure. Each piece or length of the fabric having its two opposite edges provided with the india-rubber B and cloth C may be readily attached to the ribs of the reel by tacks driven through the india-rubber and cloth, or, when desired, by sewing the two contiguous edges of adjoining strips or pieces together. Inasmuch as all the transverse threads or wires of the fabric are firmly embedded separately and collectively in the india-rubber, it follows that there is no inequality of strain upon said threads or wires. There is no such direct contact of the fabric with the ribs as would cause unequal working or wearing of the fabric or any of its threads or wires, and a perfectly-flexible but strong and uniform connection of all of the edges of each piece or length of the sifting fabric to the ribs of the reel is secured.

In the manufacture of the article aforesaid it is preferred that the edges provided with the india-rubber and the cloth, as described, shall be passed through suitable heated rollers, which will apply heat and pressure simultaneously to effect the simultaneous attachment of the india-rubber to the edges of the fabric and of the cloth to the india-rubber. When preferred, the india-rubber before being applied may be itself softened by any suitable means, and in this semi-plastic condition may be applied in place, and have the cloth applied to the outer surfaces thereof. In such cases the pressure may be applied by ordinary pressure-rollers at ordinary temperatures. When desired, however, the cloth or ticking C may be coated on one side with india-rubber of the requisite depth or thickness, and by any ordinary or suitable means. This compound material may be cut into strips of suitable width, and these may be folded over the edges of the bolting

5 fabric A, and then compressed thereon under conditions of heat and pressure to insure the firm adhesion of the adjoining surfaces of the india-rubber, and the attachment of said combined material to the edges of the bolting fabric A.

10 Ordinarily the india-rubber B and cloth C, when applied to the bolting fabric as aforesaid, should extend inward from the outer edge about one and one-half inch—that is to say, when the strips of india-rubber and cloth are folded over the edge upon the opposite sides of the bolting fabric, as hereinbefore described, said strips of india-rubber and cloth  
15 should have the width of about three inches.

20 In lieu of india-rubber, any of the usual or known equivalents thereof may be employed—that is to say, substances having like properties of elasticity, strength, plasticity, and adhesiveness, combined with the property of more or less softening under conditions of heat—such, for example, as the compound very generally known as a “cement” composed of india-rubber, litharge, and white lead.

What I claim as my invention is—

25 1. The combination, with a bolting or sifting fabric, A, of the layers B, of plastic, elastic, and adhesive material, having their inner surfaces united through the meshes or interstices of the fabric A, and the layer of cloth C, applied and cemented to the external surfaces of the layers B, all substantially as and for the purpose herein set forth. 30

35 2. The herein-described method of attaching the layers of india-rubber B and cloth C to the bolting or sifting fabric A, consisting essentially in placing the said parts in their relative positions, and then compressing the india-rubber upon the opposite sides of the fabric A and the cloth upon the outer surfaces of the india-rubber by the conjoint action of heat and pressure, substantially as and for the purpose herein set forth. 40

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Witnesses:

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