

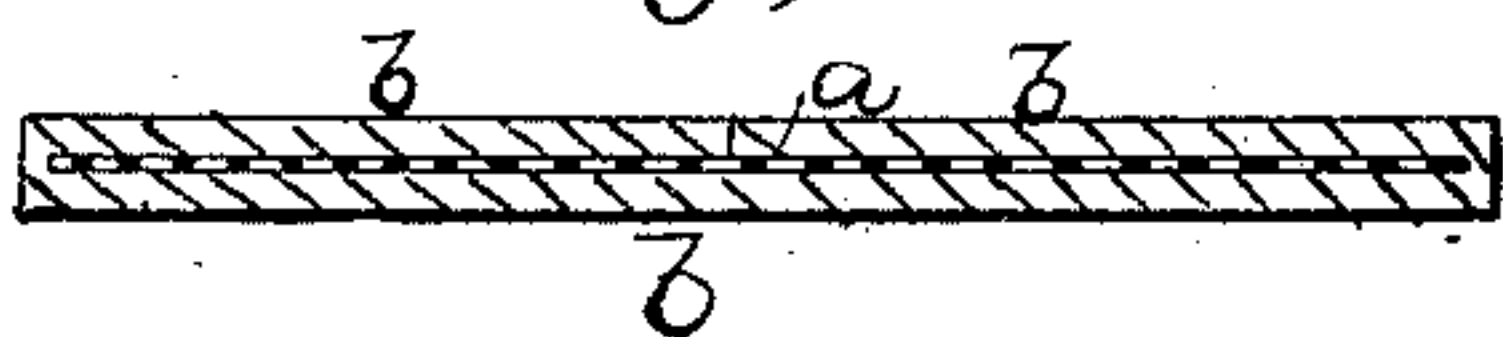
*J. H. Cheever.*

*Machine Belting,*

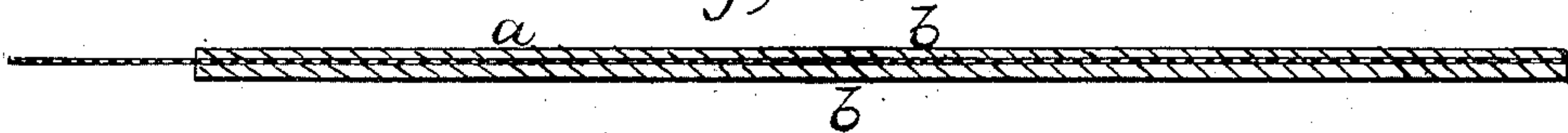
*No 21,596,*

*Patented Sep. 28, 1858.*

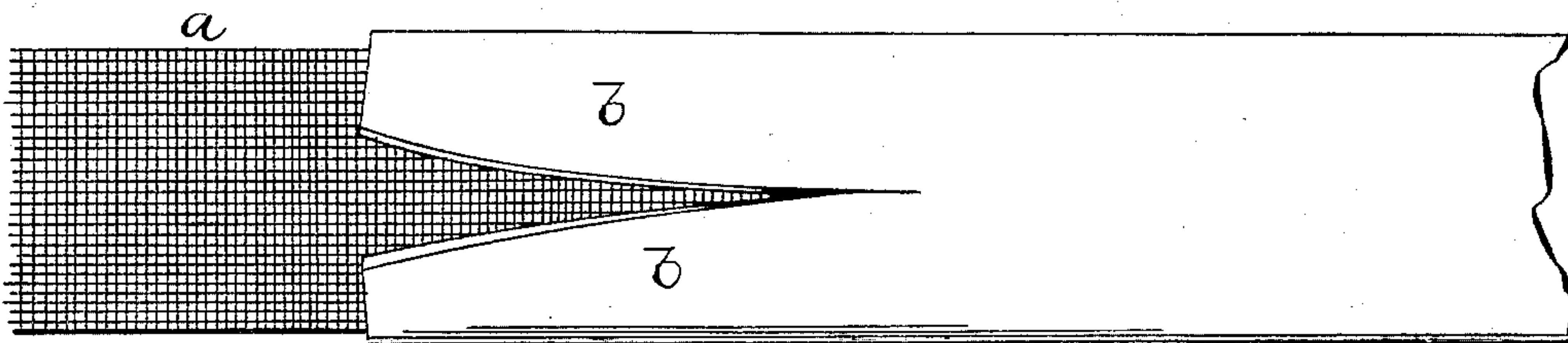
*Fig; 1.*



*Fig; 2.*



*Fig; 3.*



# UNITED STATES PATENT OFFICE.

JOHN H. CHEEVER, OF NEW YORK, N. Y.

## MACHINE-BELTING.

Specification of Letters Patent No. 21,596, dated September 28, 1858.

*To all whom it may concern:*

Be it known that I, JOHN H. CHEEVER, of the city, county, and State of New York, have invented a new and useful Improvement in Machine Belting or Banding; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a transverse section of a piece of belting manufactured according to my invention. Fig. 2 is a longitudinal section of the same. Fig. 3 is a face view of the same, partly torn open to show the interior.

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

My invention consists in so combining wire-cloth or netting, or strands of wire with india-rubber or gutta-percha to produce machine belting or banding, that the wire shall give the banding or belting the great strength necessary to resist the great strain it is required to sustain, while that peculiar surface which has been found so useful for belting or banding is obtained by the india-rubber or gutta-percha.

To enable others skilled in the india-rubber and gutta-percha manufacture to make my improved belting or banding I will proceed to describe the several methods in which it may be made.

The method which I at present consider the best is to take a strip of wire cloth or netting of the desired width of or a slightly less width than the desired width of the belt or band, and I place it upon a strip of cotton duck, both sides of which have been covered with a thin coat of india-rubber; the duck being twice the width of the wire-cloth or netting and the latter being placed along the center of the duck. I then fold over the sides of the duck upon the wire cloth or netting, as shown in the drawing, where *a*, is the wire cloth and *b*, the india-rubber coated duck, and afterward pass the whole through the calender rolls commonly used in the manufacture of india-rubber goods for the purpose of pressing, causing the adhesion of the parts and smoothing the exterior; and if the belt or band is to be vulcanized, I finally place it in the heater where it finally undergoes the ordinary vulcanizing process.

It is desirable, though not indispensable, that the india-rubber coated duck which comes in contact with opposite sides of the wire cloth or netting should be coated so thickly with rubber that, upon pressure, the rubber will be pressed through the meshes of the wire cloth or netting or around the wires in such a manner that the two opposite surfaces of the india-rubber coating may adhere.

I prefer to use for the exterior of the belt or band a strip of duck which has been coated on both sides with india-rubber; but a strip of india-rubber or of gutta-percha without the duck can be used or strip of fabric composed of india-rubber mixed with fibers of cotton or of other material, as specified in my Letters-Patent dated March 11, 1856; such strips to be applied in the same manner as above specified; and though I prefer that the india-rubber or gutta-percha should be vulcanized, it may be used without being vulcanized; and I prefer to use for the interior cloth or netting, annealed iron wire, but wire cloth or netting of any other metal may be used, or in place thereof or in combination therewith, strands of wire arranged lengthwise of the belt may be used. The wire cloth or netting may be woven with a diagonal arrangement of its wires to provide for greater elasticity of the belt than would be obtained by the longitudinal and transverse arrangement of the wires.

I do not claim, broadly, the employment of wire in machine belting; nor do I claim as new the use of rubber or other gums in the manufacture of belting; but the object I wish to attain is the production of a belt or band in which the wire and india-rubber or gutta-percha are so combined that the former gives it great strength while the latter gives it a surface of desirable character, and

What I claim as my invention, and desire to secure by Letters-Patent, is:

The manufacture of belts or bands of a combination of india-rubber or gutta-percha with wire cloth or netting or strands of wire, substantially as and for the purpose herein described.

JOHN H. CHEEVER.

Witnesses:

W. TUSCH,  
W. HAUFF.