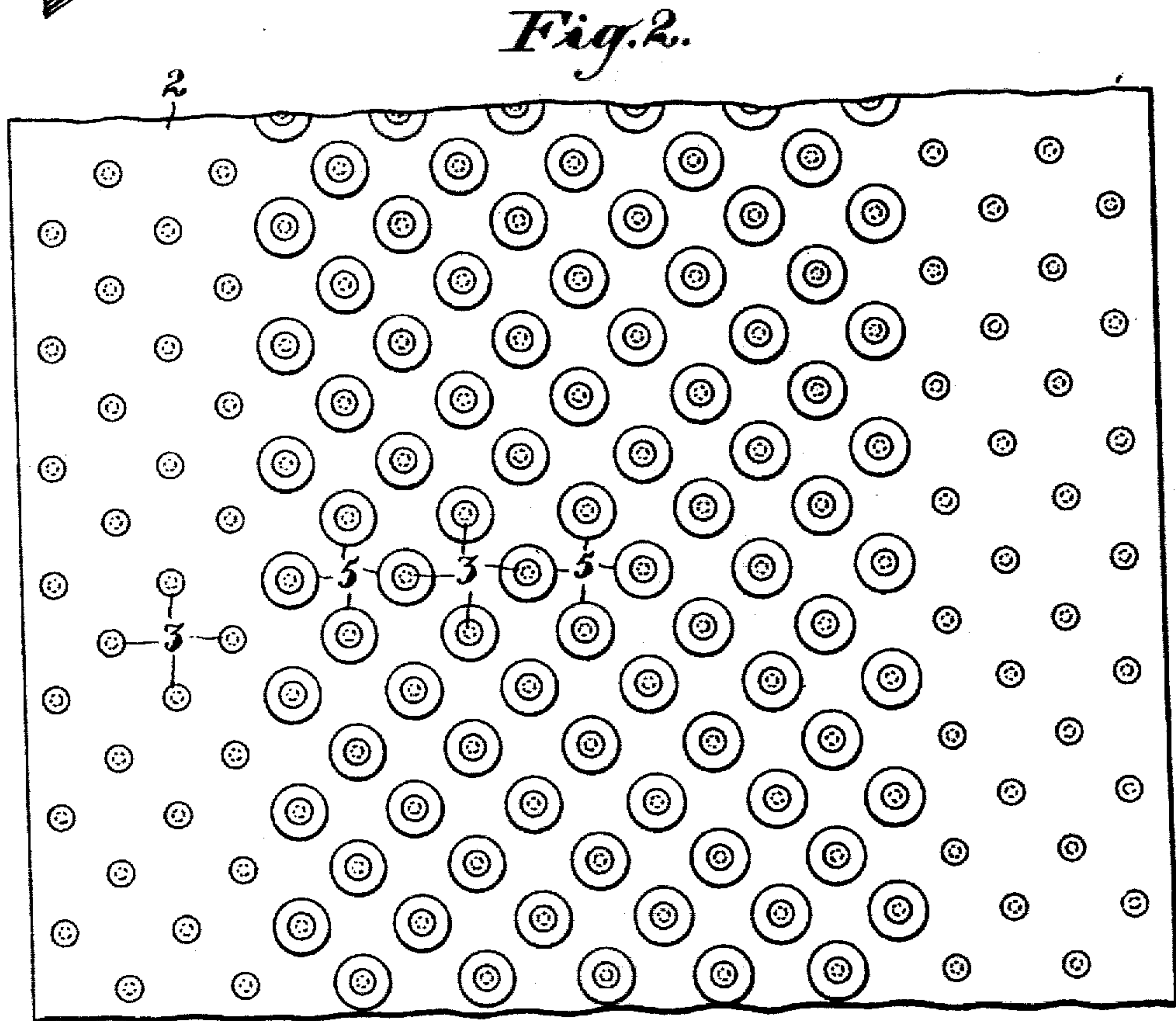
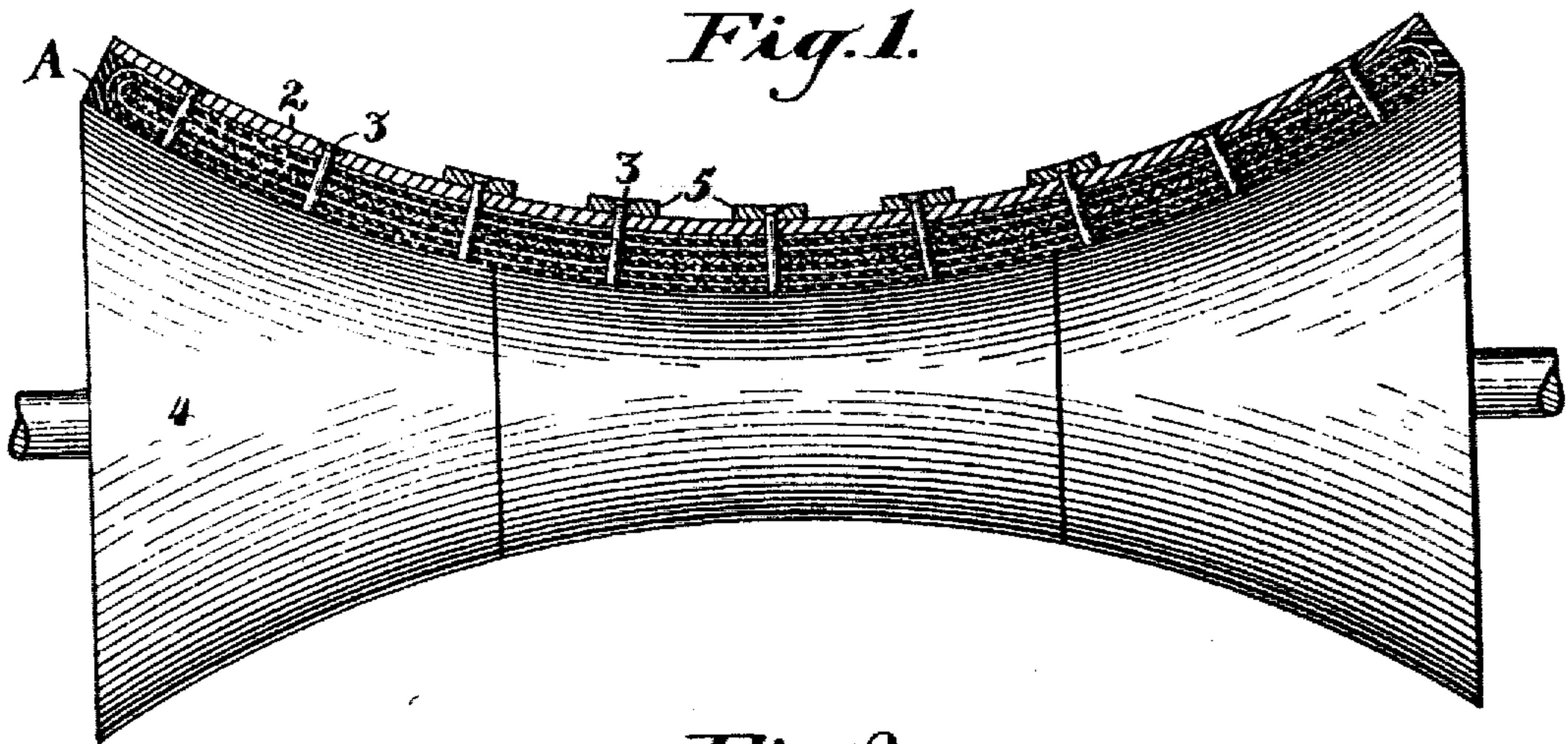


No. 814,943.

PATENTED MAR. 13, 1906.

M. H. COOK,  
CONVEYER BELT.

APPLICATION FILED SEPT. 29, 1905.



Witnesses:

J. C. Fiedner  
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Inventor,

Milton H. Cook  
By Geo. H. Strong, atty



# UNITED STATES PATENT OFFICE.

MILTON H. COOK, OF SAN FRANCISCO, CALIFORNIA.

## CONVEYER-BELT.

No. 814,943.

Specification of Letters Patent.

Patented March 13, 1906.

Application filed September 29, 1905. Serial No. 280,602.

*To all whom it may concern:*

Be it known that I, MILTON H. COOK, a citizen of the United States, residing in the city and county of San Francisco and State of California, have invented new and useful Improvements in Conveyer-Belts, of which the following is a specification.

My invention relates to a belt which is especially designed for conveying away the rough rocks and heavy debris discharged from mining-dredgers and the like.

It consists in the combination and arrangement of parts and in details of construction, which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a transverse section of my belt. Fig. 2 is a plan view of same.

In the conveying of the rocks and heavy valueless material which is excavated by mining-dredgers it is customary to use long heavy belts, so that this material may be discharged one hundred feet or more away from the machine. Such belts have been made of rubber, and they wear so rapidly that belts costing from fifteen hundred to two thousand dollars are worn out in a very few months and must be replaced.

It is the object of my invention to provide a belt for this purpose which will resist the wear of the rough material.

In constructing my belt I employ a heavy rubber and canvas fabric A, made up in the usual manner of such belts. Upon the upper surface of this rubber and canvas belt is riveted or otherwise secured a mineral-tanned leather 2, such as is known as "chrome-leather," which is exceedingly tough and resistant of wear. I have here shown the two portions of the belt as secured together by rivets, as 3; but the leather being strongly heat-resistant may be vulcanized upon the rubber, if desired. This belt may pass over drums at each end in the usual manner, and the drum at the discharge end may preferably be considerably elevated, so as to carry the rocks and material to a sufficient elevation and distance. Intermediate between the end drums may be supporting-drums or rollers 4, which are sufficiently near together to prevent any undue sagging of the belt, and the concavity of the rollers is such as to give the belt a corresponding concavity transversely. Thus the material carried by the belt has a tendency toward the center of the belt, leaving the edges comparatively unworn.

The rock and material carried by the belt have a tendency to slide backwardly, and thus increase the wear of the belt. In order to overcome this difficulty, I fix rows of independent buttons 5 upon the central portion of the belt-surface and sufficiently near together to in a great measure prevent the sliding contact of the rocks upon the surface of the belt. It is not necessary to carry these buttons entirely to the edges of the belt, since these edges are raised by the concavity of the bearing-rollers over which they pass and are subjected to comparatively little wear, and this wear is also partly resisted by the rows of rivets 3.

It will be understood that the devices 5, termed "buttons," may be elongated transversely, being made of suitable flexible material, and that such devices may be employed upon any material suitable for such a carrying-belt. It will also be understood that the roller 4 may be subdivided into sections, so that the large ends and reduced central portions may revolve independently and relieve the belt of such frictional wear as might otherwise occur by reason of the different diameters of the rollers between their ends.

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

1. A carrying-belt composed of an upper surface of mineral-tanned leather and a rubber and canvas body to which the upper surface is integrally secured.

2. A carrying-belt consisting of an upper surface of mineral-tanned leather, a body or base consisting of a rubber and canvas fabric, rivets by which the two fabrics are secured together and buttons fixed upon the upper surface of the belt.

3. In a carrying-belt, a body composed of rubber and canvas fabric, a surface of mineral-tanned leather, rivets by which the two are secured together from side to side and raised knobs or buttons fixed along the central portion of the belt.

4. A carrying-belt consisting of a body of rubber and canvas fabric, a surface of mineral-tanned leather secured thereto, concaved bearing-rollers over which the belt travels and by which it is given a concave form, and knobs or buttons fixed in close proximity on the central and wearing portion of the belt.

5. A carrying-belt having an upper surface of mineral-tanned leather, and raised devices fixed upon said surface.



6. A carrying-belt and means for supporting the same, said belt having an upper surface composed of mineral-tanned leather and said surface having rows of independent  
5 raised devices fixed to the central portions thereof.

7. A carrying-belt and supporting-rollers therefor made concaved between the ends and formed of revoluble sections, said belt  
10 having an upper surface composed of min-

eral-tanned leather, and rows of raised devices fixed to the central portion of said surface.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses. 15

MILTON H. COOK.

Witnesses:

S. H. NOURSE,

HENRY P. TRICOU.