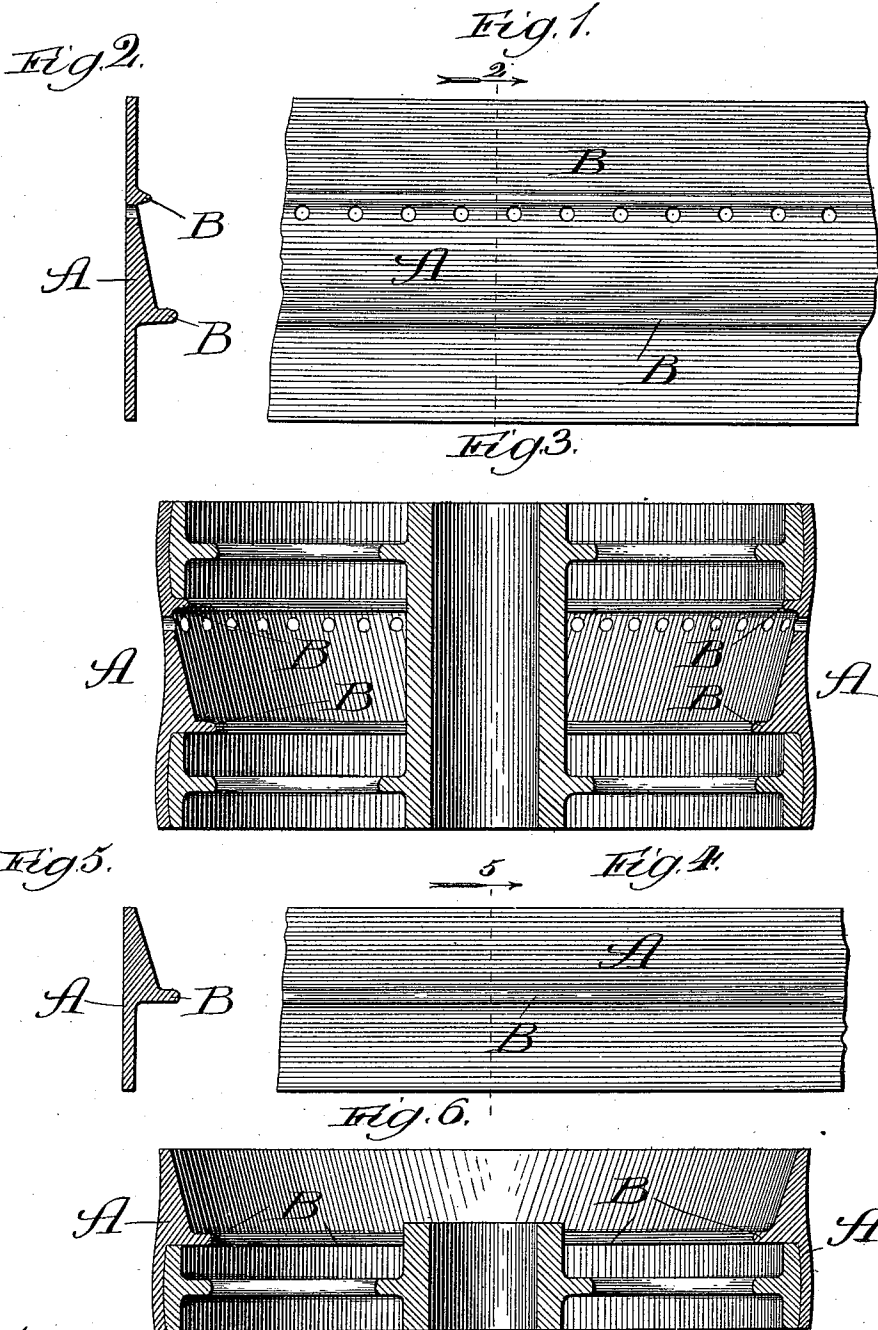


(No Model.)

O. B. PECK.
BELT.

No. 485,476.

Patented Nov. 1, 1892.



Witnesses:
Ed. Gaylord,
Clifford White.

Inventor:
Orrin B. Peck,
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UNITED STATES PATENT OFFICE.

ORRIN B. PECK, OF CHICAGO, ILLINOIS, ASSIGNOR TO MELINDA PECK, OF
SAME PLACE.

BELT.

SPECIFICATION forming part of Letters Patent No. 485,476, dated November 1, 1892.

Application filed January 11, 1892. Serial No. 417,893. (No model.)

To all whom it may concern:

Be it known that I, ORRIN B. PECK, a citizen of the United States, residing at Chicago, Illinois, have invented certain new and useful Improvements in Belts, of which the following is a specification.

In the drawings, Figure 1 is a front elevation of a portion of my improved belt. Fig. 2 is a cross-section of the same on the line 2 of Fig. 1, looking in the direction of the arrow. Fig. 3 is a section of my improved belt in place on a double-faced pulley. Figs. 4, 5, and 6 are corresponding views showing a modification of the belt and pulley.

My improved belt is intended for use in separating powdered or finely-divided particles containing mineral-bearing substances of different degrees of specific gravity, and is particularly adapted for use in the apparatus which I have described and claimed in an application filed contemporaneously herewith, Serial No. 417,685.

In making my improved belt A, I make it of considerable width and preferably with two flat portions adapted to engage the faces either of a double pulley, as shown in Fig. 3, or of separate pulleys mounted on the same shaft. Between the flat surfaces I arrange one or more, but preferably two, flanges or ribs B, extending out a desired distance and with an inclined surface from the lower rib extending toward the upper. I also arrange a series of holes or perforations along the edge of the inclined portion of the belt, so that when such portion is used as a separating-surface to separate the lighter from the heavier particles of the material being treated provision will be made for the escape of the lighter particles through the holes or perforations. The object of the upper or smaller of the two ribs or flanges is not only to assist in holding the belt in position on the pulleys, but also to prevent the lighter particles of the material being treated, together with the water used in connection with the same, from passing up beyond the series of holes provided for their discharge. The lower rib or flange, also, is adapted to fit the edge of the pulley on which it is mounted, so as to secure and main-

tain the belt in place and at the same time insure the upward movement of the material being treated on the separating-surface of the belt.

In Figs. 4, 5, and 6 I have shown a modified form of belt adapted to be applied to a single force-pulley. In this case the upper portion of the belt above the line of perforations is dispensed with and only the lower rib or flange and the portion of the belt below the holes or perforations employed. The inclined surface, however, extending from the lower rib or flange is retained, so as to afford a separating-surface for the separation of the lighter from the heavier particles of materials being treated.

What I regard as new in this application, and desire to secure by Letters Patent, is—

1. A belt for use in separating powdered or finely-divided particles containing mineral-bearing substances of different degrees of specific gravity, provided with a surface adapted to engage a pulley and a separating-surface over which the material to be treated is passed, substantially as described.

2. A belt for use in separating powdered or finely-divided particles containing mineral-bearing substances of different degrees of specific gravity, provided with a surface adapted to engage a pulley and an inwardly-extending flange or rib, and a separating-surface over which the material to be treated is passed, substantially as described.

3. A belt for use in separating powdered or finely-divided particles containing mineral-bearing substances of different degrees of specific gravity, provided with one or more surfaces adapted to engage a pulley or pulleys, an inwardly-extending flange or rib, a separating-surface over which the material to be treated is passed, and holes or perforations along the edge of the separating-surface for the discharge of the lighter particles of the matter being treated, substantially as described.

ORRIN B. PECK.

Witnesses:

THOMAS A. BANNING,
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