

Patented July 8, 1879.

A technical drawing of a mechanical assembly. A horizontal shaft, labeled *A*, passes through a housing, labeled *E*. The shaft has a step or change in diameter. On the right side of the shaft, there is a nut and washer assembly, labeled *b* and *b<sup>1</sup>*. The housing *E* has a flange on the right side. Dimensions are indicated: *D<sup>2</sup>* and *b<sup>5</sup>* at the top of the housing flange; *D<sup>3</sup>* and *b<sup>4</sup>* at the bottom of the housing flange; *b<sup>3</sup>* and *C* on the right side of the shaft; and *b<sup>1</sup>* and *b* on the nut and washer assembly.

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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN SAND-BANDS FOR VEHICLE-WHEELS.

Specification forming part of Letters Patent No. **217,374**, dated July 8, 1879; application filed November 27, 1878.

*To all whom it may concern:*

Be it known that I, GEORGE CURTIS HILL, of Eau Claire, in the county of Eau Claire and State of Wisconsin, have invented certain new and useful Improvements in Sand-Bands for Vehicle-Axles; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a longitudinal section of my improved sand-band for vehicle-axles, and Fig. 2 is a detached perspective view of the band or guard.

The same part in the two figures is denoted by the same letter.

This invention appertains to that class of devices known as sand bands or guards for the axles of vehicles, to prevent the entrance of sand or dirt; and it consists in the combination, with a hub provided with a flanged sleeve-plate, of a sectional cylindrical guard or sleeve, the parts of which are secured upon opposite sides of the axle, substantially as hereinafter more fully set forth.

In the drawings, A is the axle of a vehicle, and B is the sand band or guard proper, its closed end having an aperture through it adapted to the shape of the axle upon which it fits, and provided with two projecting plates,  $b$   $b^1$ , the upper one of which,  $b$ , terminates in a transverse sharp-edged flange or shoulder,  $b^2$ , which fits into a correspondingly-shaped transverse groove in the bed-piece C, while the parallel lower plate,  $b^1$ , forms part of a detachable segment,  $b^4$ , of the guard or sleeve B, which, it will thus be seen, is made in two detachable parts—viz., an upper section, B  $b$ , and a lower section,  $b^1$   $b^4$ —the said two parts or sections being clamped together and secured, re-

spectively, to the upper and lower side of the axle by means of the clip D.

In the lower side of the band B, or rather in the sectional portion  $b^4$  thereof, is an aperture,  $c$ , for the escape of any particles of sand or dirt that may have accidentally entered the band or guard; or it may serve, in connection with the above-mentioned function, also for the discharge of refuse drippings of the lubricant from the spindle.

The open end of the band or guard B  $b^4$  is provided with an annular flange,  $b^5$ , which fits in under a laterally-projecting flange,  $D^2$ , of a second band or tube,  $D^3$ , which is screwed or otherwise fastened to the inner end of the hub E. This construction and arrangement of parts, it will be observed, thoroughly protect the axle against the entrance of sand, &c., and constitutes a simple, durable, and efficient means for that purpose.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

As an improvement in sand bands or guards for vehicle-axles, the combination, with the hub E, provided with a flanged sleeve-plate,  $D^3$ , of the sectional flanged sleeve B  $b$   $b^1$   $b^4$ , the two parts or sections of which are secured detachably upon opposite sides of the axle A, with their annular flange  $b^5$  projecting into the annular space between the central tube or sleeve of plate  $D^3$  and its laterally-projecting flange  $D^2$ , substantially in the manner and for the purpose herein shown and specified.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

GEORGE CURTIS HILL.

Witnesses:

LAFAYETTE ELLIOTT,  
THOMAS HUTCHINSON.