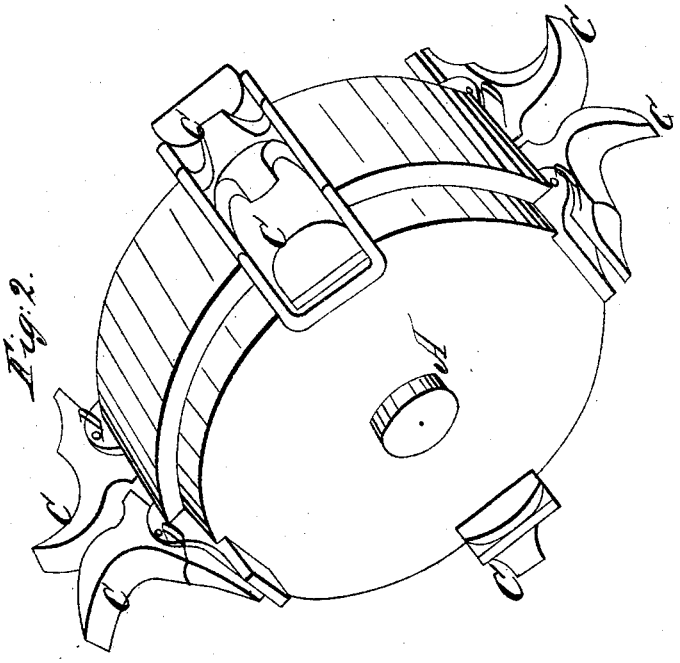
C. Foster,

Band Pulley.

No. 6,377. Patented Apr. 24, 1849.

Fig. 1.

Fig. 2.



UNITED STATES PATENT OFFICE.

CHARLES FOSTER, OF POMPEY, NEW YORK.

FORK FOR HOLDING ROPE BELTS UPON DRUM-WHEELS.

Specification of Letters Patent No. 6,377, dated April 24, 1849.

To all whom it may concern:

Be it known that I, CHARLES FOSTER, of Pompey, in the county of Onondaga and State of New York, have invented a new and useful Band-Wheel or Method of Preventing the Slipping of Ropes Upon Wheels when said Ropes are Used as Bands; and I do hereby declare that the following is a full and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 2, is a perspective view, and Fig. 1, a lateral view of the device for holding the rope and preventing its slipping either laterally or longitudinally, which is the object of my invention.

As the figures are correspondingly lettered, the same description is in most particulars adapted to both.

In Fig. 2, A, is the wheel, having a broad firm rim, upon which are placed, in the line of the axle, iron bed-pieces, and upon these are placed grippers or clamps.

Fig. 1, is a lateral view of a bed-piece E, with its grippers C, C, playing upon hinges at the points D, D. These grippers are hollowed out where the faces come together at F, so as to admit the rope; when in the position represented the diameter of the opening F, should not quite equal that of the rope. Now there being considerable play to these grippers, up and down, and their greatest weight being upon the inner side of the hinges, when the wheel has much motion the centrifugal force throws the inner and heavier ends out, thus enlarging the opening F, for the easy admission of the rope; and where the motion is slow, a slight spring under each set of grippers will have the same effect. Being admitted into the opening, as the wheel passes around, the rope must rest upon the grippers with at least its own weight; but as soon as the rope exerts any pressure upon the grippers they close upon it, and the greater the pressure the more firmly do they hold it, and the more effectually is it prevented from slipping. The force with which the grippers fasten upon the rope may be increased or diminished by increasing or diminishing the distance between the points D, D. As the rope passes around still farther, when it ceases to press upon the grippers, they cease to hold it, and it is allowed to pass freely from their grasp.

When the wheels are a few feet distant from each other, the rope may hang or pass over them very loosely, as the mere weight of the rope, coupled with the draft, is sufficient to cause the grippers to close upon and hold it with great tenacity and force. This makes the machinery independent of the weather, it being equally effective when damp or dry, and does away any necessity for light bands, and as a consequence, the machinery must run easier, with less strain and less wear, than can be the case in the use of the common band or belt wheel.

What I claim and desire to secure by Letters Patent is—

The manner above described of preventing the slipping of ropes upon wheels, viz: by attaching grippers or clamps to the periphery of the wheel, which are made to grasp and hold the rope by its own weight and the draft, the whole operating substantially in the manner and for the purpose set forth.

CHARLES FOSTER.

Witnesses:
V. P. DOANE,
J. B. BRINSMADE, Jr.