Oliver Hyde Elastic Tires for Wheels of Traction Engines.

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PATENTED JUL 25 1871

Fig. 1.

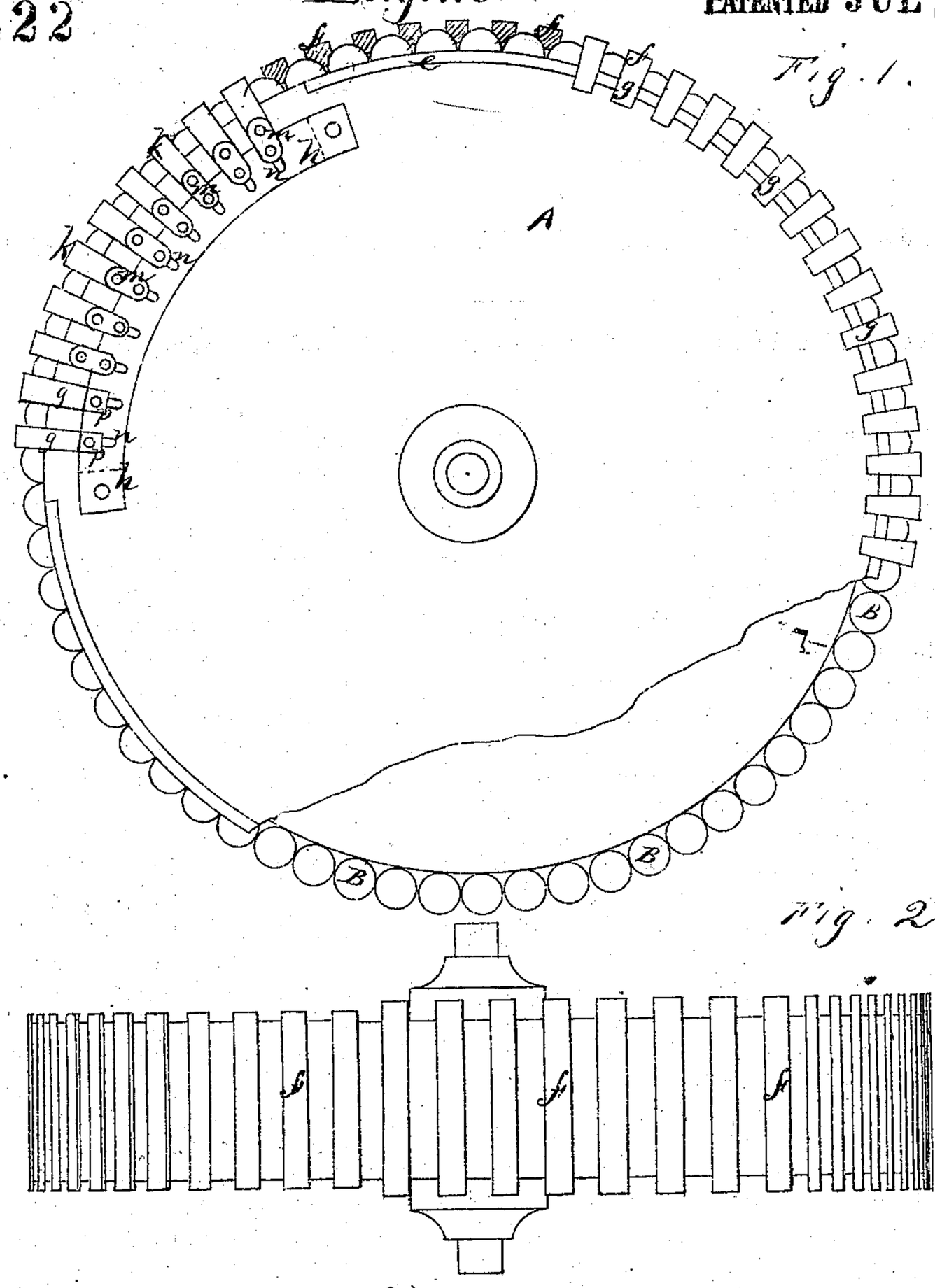


Fig. 2.

Fig. 3.

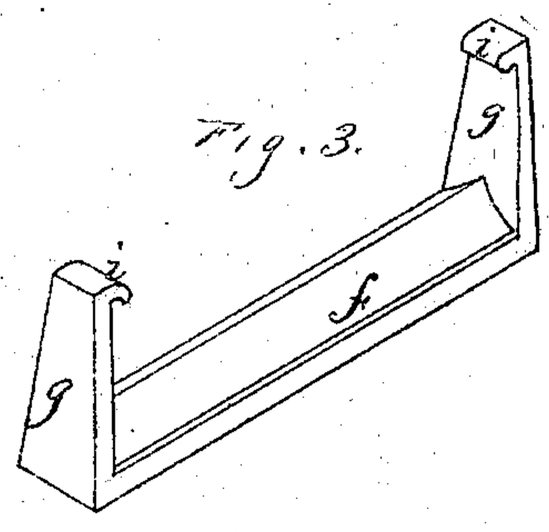
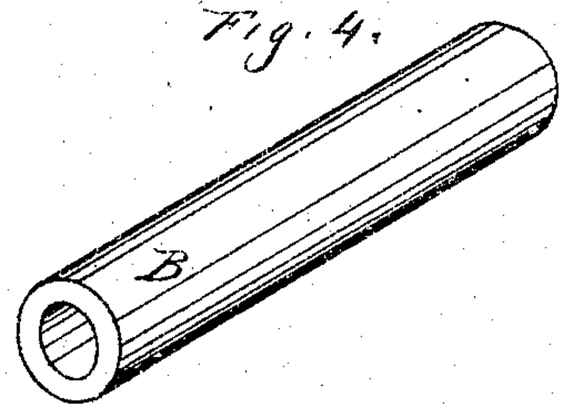


Fig. 4.



Witnesses.
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117,422

UNITED STATES PATENT OFFICE.

OLIVER HYDE, OF OAKLAND, CALIFORNIA.

IMPROVEMENT IN ELASTIC TIRES FOR TRACTION-ENGINES.

Specification forming part of Letters Patent No. 117,422, dated July 25, 1871.

To all whom it may concern:

Be it known that I, OLIVER HYDE, of Oakland, county of Alameda, State of California, have invented Improvements in Elastic Tires for Traction-Engines; and I do hereby declare the following description and accompanying drawing are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvements without further invention or experiment.

My invention relates to improvements in securing India-rubber or other elastic tires to the rims of wheels of traction-engines, and relates more particularly to that class of tires described in my former application for Letters Patent, in which cylindrical or other shaped elastic blocks are employed in succession around the face of the wheel to form a tire.

In order to fully illustrate my invention, reference is had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a side elevation, showing sections of parts of the wheel. Fig. 2 is an edge view.

A represents a wheel of any traction-engine, and B cylindrical elastic blocks, which are placed in succession in a channel around the wheel in order to form an elastic tire. In order to secure these blocks in place I use one or the other of the following devices: The first device which I will describe consists in forming the wheel with a continuous flange, *e*, which projects outward from the upper edge of both sides of the channel in which the blocks lie. The wedge or stay-blocks *f*, which rest in the angle formed by the junction of any two of the cylindrical blocks across the face or tread of the wheel, have both ends bent at right angles to it, thus forming side plates *g*. At the extremity of these side plates, and on the inside, is forged or otherwise formed a projection or lug, *i*, which serves to hook over the flanges *e* upon both sides of the wheel and hold the stay-blocks *f* down firmly upon the cylindrical blocks. When the wheel is moving under a weight, and the elastic blocks are compressed, the stay-blocks, with their side plates, are free to play toward the center of the wheel; but when the pressure has been removed, and elastic blocks assume their original size, the lugs will catch upon the flanges *e* and prevent them from becoming displaced. The other devices which I employ are simply modifications of the one above described, the flanges *e* being discarded when they are used. In place of the flange *e*, a circular metal rim or plate, *h*, is secured to the face of the wheel near the periphery upon both sides, so that a space shall be left between it and the face of the wheel. This is accomplished by placing between it and the face of the wheel, at intervals, thin metal blocks, as shown, and, by means of bolts, rivets, or screws, fastening the rim to the wheel through these blocks. The stay-blocks *k* are made in the form of those above described, with the exception that instead of the lugs *i*, which hook over the flanges *e*, link-plates *m* are bolted or riveted upon each side of the extremities, one passing underneath and the other on top of the rim *h*. The extremities of these link-plates are then bolted through together, a slot, *n*, which is made across the face of the circular rim, thus allowing the bolts to play back and forth as the links relax and tighten by the alternate compression and expansion of the elastic blocks. The last device consists in simply extending the side plates *g* so that they shall pass underneath the circular rim *h*, and then, by means of a bolt, which is provided with a large head or nut, *p*, securing its extremity through the slot *n*, so that the nut or head will be upon the outside of the rim and the bolt play in the slot, as above described. Either of these devices will serve the purpose of securing the elastic blocks in place around the wheel, and will form a neat arrangement and one which will be quite inexpensive.

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

The wedge or stay-blocks *f* with their side plates *g*, provided with a lug or projection *i*, in combination with the flange *e* or equivalent device, substantially as and for the purpose above described.

In witness whereof I have hereunto set my hand and seal.

OLIVER HYDE. [L. S.]

Witnesses:

WM. H. RUNNELS,

J. L. BOONE.