J. BACON.

VEHICLE-WHEEL.

No. 193,747. Patented July 31, 1877.

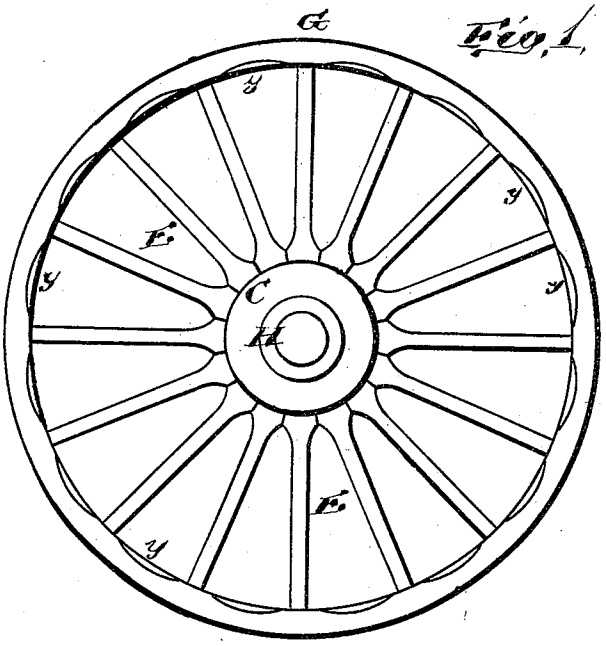

Fig. 1.

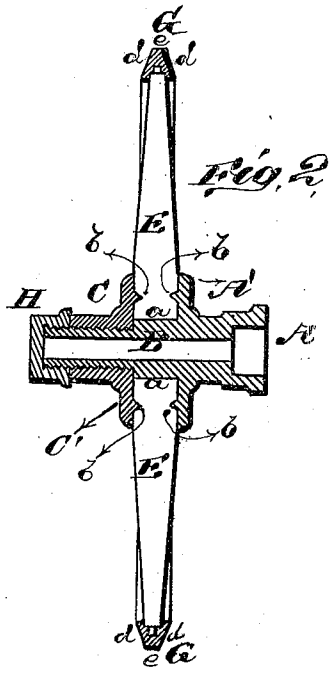

Fig. 2.

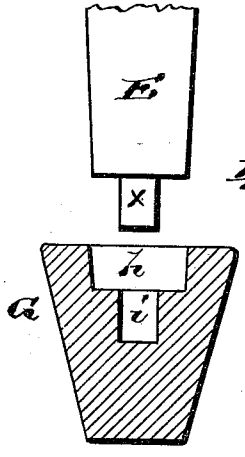

Fig. 3.

WITNESSES

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UNITED STATES PATENT OFFICE.

JEROME BACON, OF MEDINA, WIS., ASSIGNOR OF TWO-THIRDS OF HIS RIGHT TO GILBERT BACON AND ALMOND V. HOLCOMB, OF SAME PLACE.

IMPROVEMENT IN VEHICLE-WHEELS.

Specification forming part of Letters Patent No. **193,747**, dated July 31, 1877; application filed July 21, 1877.

To all whom it may concern:

Be it known that I, JEROME BACON, of Medina, in the county of Outagamie and State of Wisconsin, have invented a new and valuable Improvement in Wheels; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a plan view of my wheel; and Fig. 2 is a transverse central sectional view of the same. Fig. 3 is a transverse sectional view of the felly, showing manner in which the spoke is entered.

The nature of my invention consists in the construction and arrangement of a wheel for vehicles, as will be hereinafter more fully set forth.

The annexed drawing, to which reference is made, fully illustrates my invention.

The hub of my wheel is composed of a hub, A, with flange A′, and a box, B, projecting from the same, and a loose hub, C, with flange C′ screwed on the box B, which box is, for that purpose, provided with exterior screw-threads, leaving, however, between the flanges a smooth portion, *a*, on which the inner ends of the spokes rest when first put into the hub.

On the inner sides of the flanges A′ and C′ are formed circular projecting heads *b b* concentric with the hub, which flanges or heads enter corresponding notches in the inner ends of the spokes E, so that when the hub C with its flange is screwed upon the box tightly against the spokes, said spokes will be tightly and firmly held in position.

On the end of the box B is then screwed a cap, H, to retain the oil, and prevent any dirt or dust entering between the box and the hub C.

G represents the felly of the wheel made in one single piece of steel or other suitable metal and forming a combined felly and tire.

The felly G is made tapering or inclined on both sides, as shown at *d d*, forming a narrow flat tread, E, around the periphery of the felly, the inner edge of the felly being made wider than the outer. This construction of the felly renders it easy traveling through the sand and mud, as the tread, being narrow, will easily pass down into the sand or mud, and the inclined sides *d d* will—so to say—compress the sand or mud on both sides, and prevent the wheel from sinking in too deep.

Around the inner circumference of the felly G, at suitable equal distances apart, are formed a series of circular recesses or sockets, *h*, in the bottom of each of which is formed a smaller circular recess, *i*.

These recesses are to receive the outer ends of the spokes E, the body of the spoke resting in the recess *h* while a tenon, *x*, formed on the end of the spoke, enters and rests in the bottom of the recess *i*, thus forming two solid bearings at the end of each spoke.

In case of shrinkage of the spokes, they can easily be tightened lengthwise by interposing washers between the inner ends of the spokes and the smooth surface *a* of the box, while sidewise they are tightened by screwing up the flange C′.

Between the recesses *h* the inner surface of the felly G is hollowed out or beveled on both sides, as shown at *y y*, to improve the appearance of the wheel, and mainly to cause the sand and dirt to easily fall off, and not be carried up by the wheel.

The wheel thus constructed is light, and at the same time strong and durable, and not liable to get out of order.

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

1. In a wheel for vehicles a metallic felly made in one piece with inclined sides *d* converging to the narrow tread *e*, substantially as and for the purposes set forth.

2. A metallic felly made in one piece with inclined sides converging to the narrow tread *e*, and having the double recesses *h i* on the inner surface, substantially as and for the purposes set forth.

3. In a wheel for vehicles, the combination

of a metallic felly made in one piece with inclined sides, converging to the narrow tread *e*, and having double recesses in its inner surface, and the spokes having tenons at their outer ends, whereby a double bearing is afforded at the outer end of each spoke, substantially as and for the purposes set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JEROME BACON.

Witnesses:
JAMES SHEELY,
JNO. D. PATTEN.