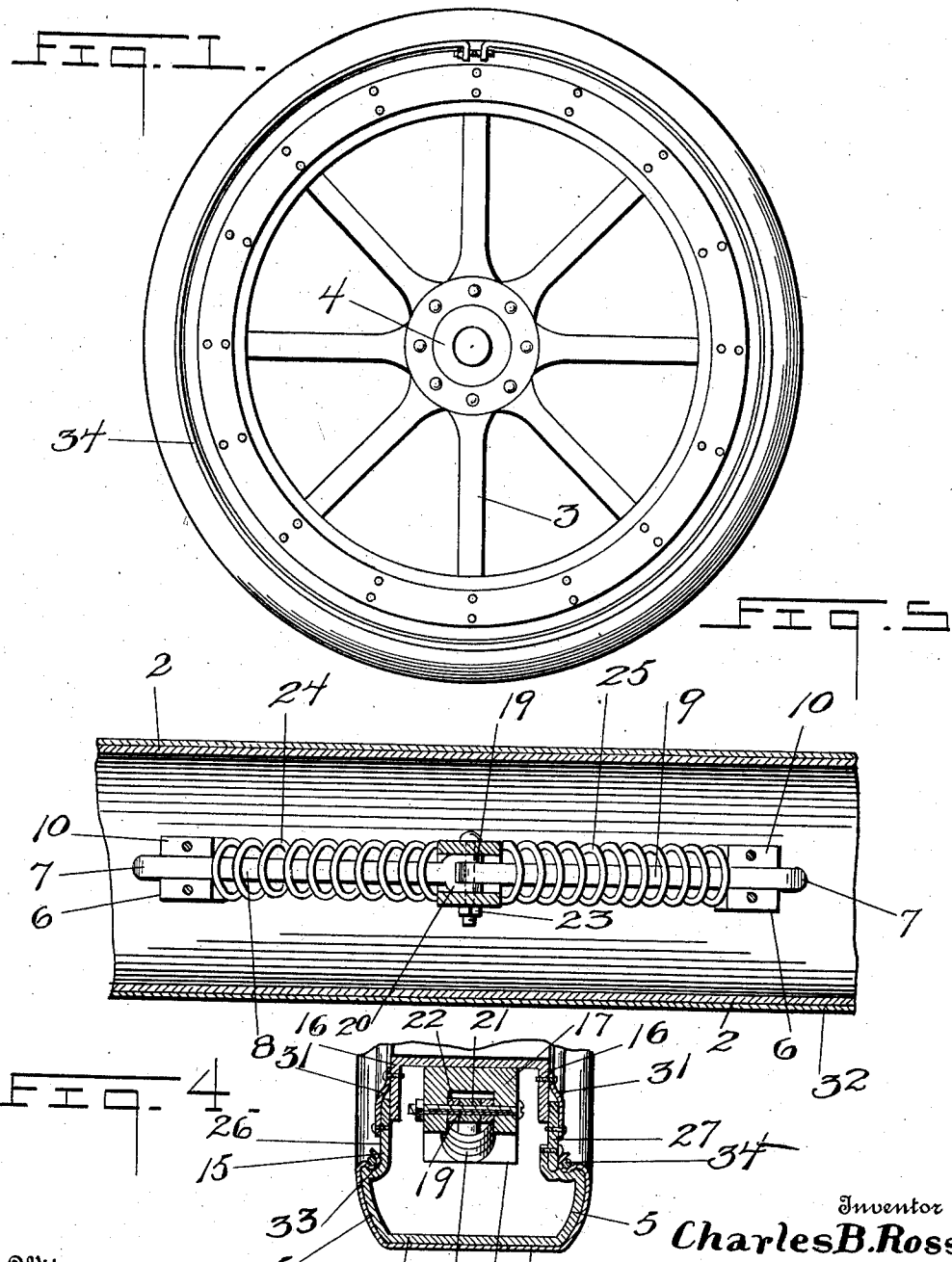


C. B. ROSS.
 VEHICLE WHEEL.
 APPLICATION FILED OCT. 17, 1910.

1,025,591.

Patented May 7, 1912.
 2 SHEETS-SHEET 1.



Witnesses
E. E. Johansen
William J. Johnson

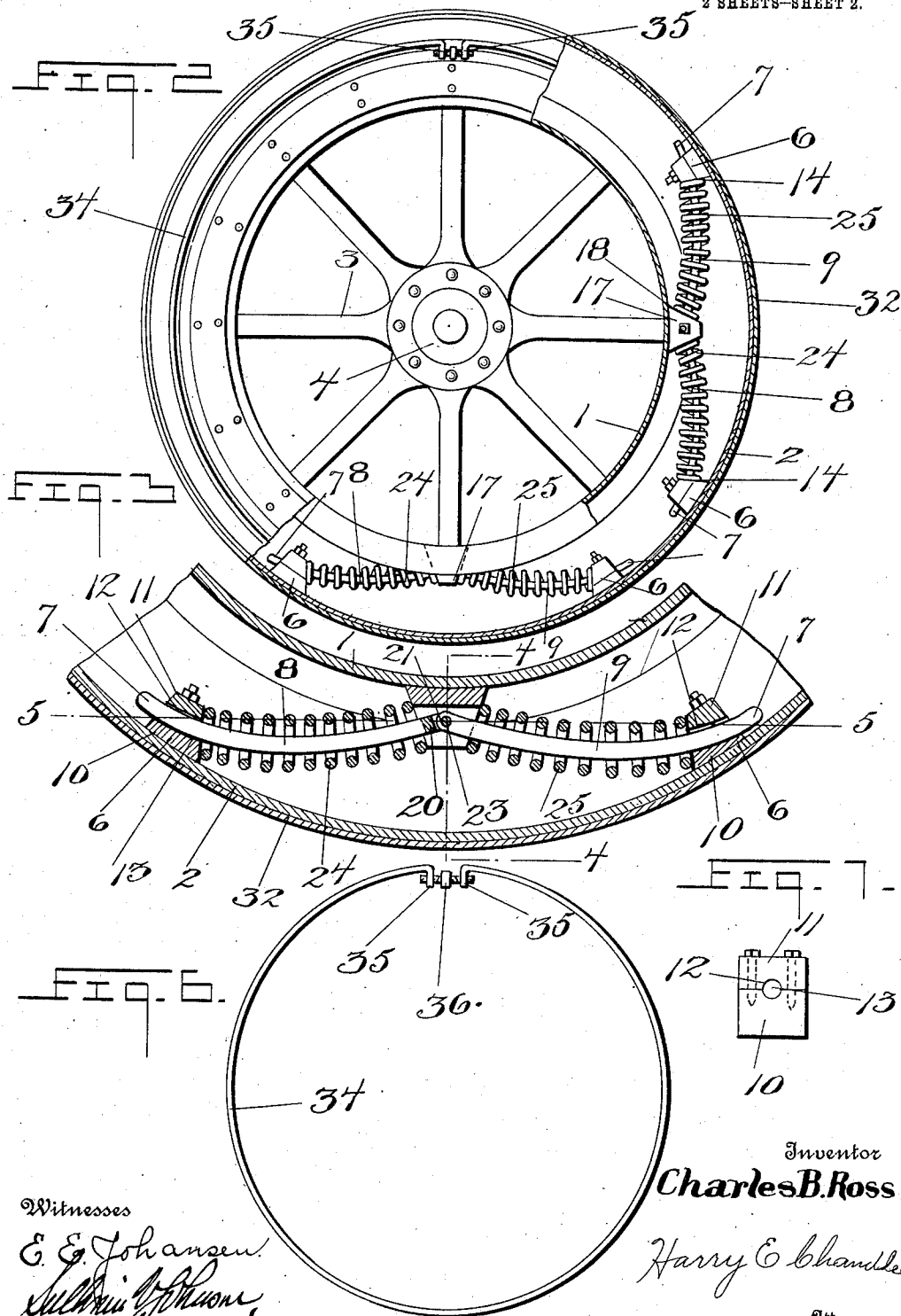
Inventor
Charles B. Ross
 By *Harry E. Chandlee*
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Witnesses
E. E. Johansen.
Arthur Johnson.

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UNITED STATES PATENT OFFICE.

CHARLES B. ROSS, OF GREENLEAF, KANSAS.

VEHICLE-WHEEL.

1,025,591.

Specification of Letters Patent.

Patented May 7, 1912.

Application filed October 17, 1910. Serial No. 587,411.

To all whom it may concern:

Be it known that I, CHARLES B. ROSS, a citizen of the United States, residing at Greenleaf, in the county of Washington and State of Kansas, have invented certain new and useful Improvements in Vehicle-Wheels, of which the following is a specification.

This invention relates to new and useful improvements in vehicle wheels and has relation particularly to that type known as resilient or spring wheels and has for its object to produce a wheel of this character which will combine all advantages obtained by the use of pneumatic tires.

Another object of the invention is to produce a wheel of this character, which will be cheap in construction, durable, and efficient in operation.

The invention consists in the construction and combination of parts to be more fully described in the specification, and pointed out in the claim.

Referring to the accompanying drawings: Figure 1 is a side elevation, Fig. 2 is a side elevation, parts being partially broken away to show the interior construction, Fig. 3 is a detail view showing the section through one of the sets of springs and guide blocks, Fig. 4 is a transverse section on line 4-4 of Fig. 3, Fig. 5 is a longitudinal section made on line 5-5 of Fig. 3, Fig. 6 is a side elevation of the expanding cover clamping ring, Fig. 7 is a detail view of one of the guide blocks.

Referring now to the drawings the present wheel comprises inner and outer spaced rims 1 and 2, respectively, the first mentioned rim having spokes 3 suitably secured thereto, the inner ends of which are suitably attached to a central hub 4. The outer rim 2 is provided with inwardly extending side flanges 5. Secured intermediate of these flanges 5 are blocks or guides 6, adapted to receive the ends 7 of the curved rods 8 and 9. It will be noted that the blocks 6 are formed in two parts 10 and 11, each part being provided with a semicircular groove 12, and when the top part of the block 6 is placed upon the lower part 10 an opening 13 is provided to receive the ends 7 of the curved rods 8 and 9. The opening 13 formed by the parts 10 and 11 of the block 6 is of sufficient diameter to allow the ends of the curved rods 8 and 9 to freely slide therein. It will also be noted that when the parts 10 and 11 of the block

are assembled an inclined face 14 is provided. It will be noted that one of the flanges 5 of the outer rim 2 is of sufficient length so that the same extends downwardly, as at 15.

The inner rim 1 is provided with upwardly extending side flanges 16, and has suitably secured to its outer face, intermediate the side flanges 16 a block 17, said block having inclined faces 18. The block 17 is further provided with a forked opening 19 adapted to receive the inner ends of the curved rods 8 and 9. The curved rod 8 is provided with a bifurcated end 20 and the curved rod 9 is provided with an opening 21 and adapted to fit within the bifurcated end 20 of the rod 8. The rod 8 is likewise provided with openings 22 to register with the opening 21 of the rod 9, and when the rods are in this position they are placed within the forked opening 19 of the block 17, and the bolt 23 is passed through the forked end of the block 17, and through the registered openings 21 and 22 of the rod 8 and 9, respectively, thereby forming a pivotal connection at the forked opening of the block 17. Loosely surrounding the curved rods 8 and 9 are coil springs 24 and 25, the free ends of which are adapted to rest against the inclined faces of the blocks 17 and 6. The openings 13 of the blocks 6 are slightly curved, in cross section, to accommodate the curvature of the ends 7 of the rods 8 and 9, thereby allowing free slidable action at these points.

As before stated one of the flanges 5 of the outer rim 2 extends below the edge of the opposite flange thereby forming a cover 26, for one side of the wheel. Attached near the edge of one of the flanges 5 is a removable circular plate 27, said plate being rigidly secured to the flange by suitable fastening means, screw threaded bolts being preferable. From this construction it will be readily seen that the inner and outer rims will have a telescopic action when the wheel passes over obstructions, thereby allowing the springs, and their connections to relieve the jar incident to such action.

The numerals 31 designate suitable coverings, preferably of canvas, but it will of course be understood that any well known flexible material may be used for this purpose. These covers will exclude dust and the like from gaining access to the interior construction of the wheel.

If desired a covering of leather 32 or other material may be placed around the outer rim 2, said covering being adapted to pass around the side flanges 5 and into a groove 5 33 formed in said flanges, and adapted to be retained therein by means of an expanding ring 34. The expanding ring 34 is of the usual construction, and comprises the downwardly extending lugs 35, said lugs having 10 screw threaded openings therein and a screw threaded bolt 36 adapted to be operated to expand or contract the ring 34.

When it is desired to gain access to the interior construction of the wheel it is only 15 necessary that the covering 27 be removed, thus obviating the necessity of disassembling the entire wheel.

What is claimed is:

20 A spring wheel comprising inner and outer spaced rims, the inner rim carrying

forked blocks provided with inclined faces, the outer rim being provided with spaced blocks and having curved openings formed therethrough, the opposing faces of each being inclined, curved rods having pivotal 25 connections with the blocks carried by the inner rim, and their free ends adapted to pass through the curved openings formed in the spaced blocks carried by the outer rim, and coil springs surrounding the curved 30 rods, and having their terminals resting against the opposing inclined faces of the block carried by the inner rim and the inclined faces of the blocks of the outer rim.

In testimony whereof I affix my signature, 35 in the presence of two witnesses.

CHARLES B. ROSS.

Witnesses:

GEORGE DURHAM,
TIMOTHY ZINN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."