

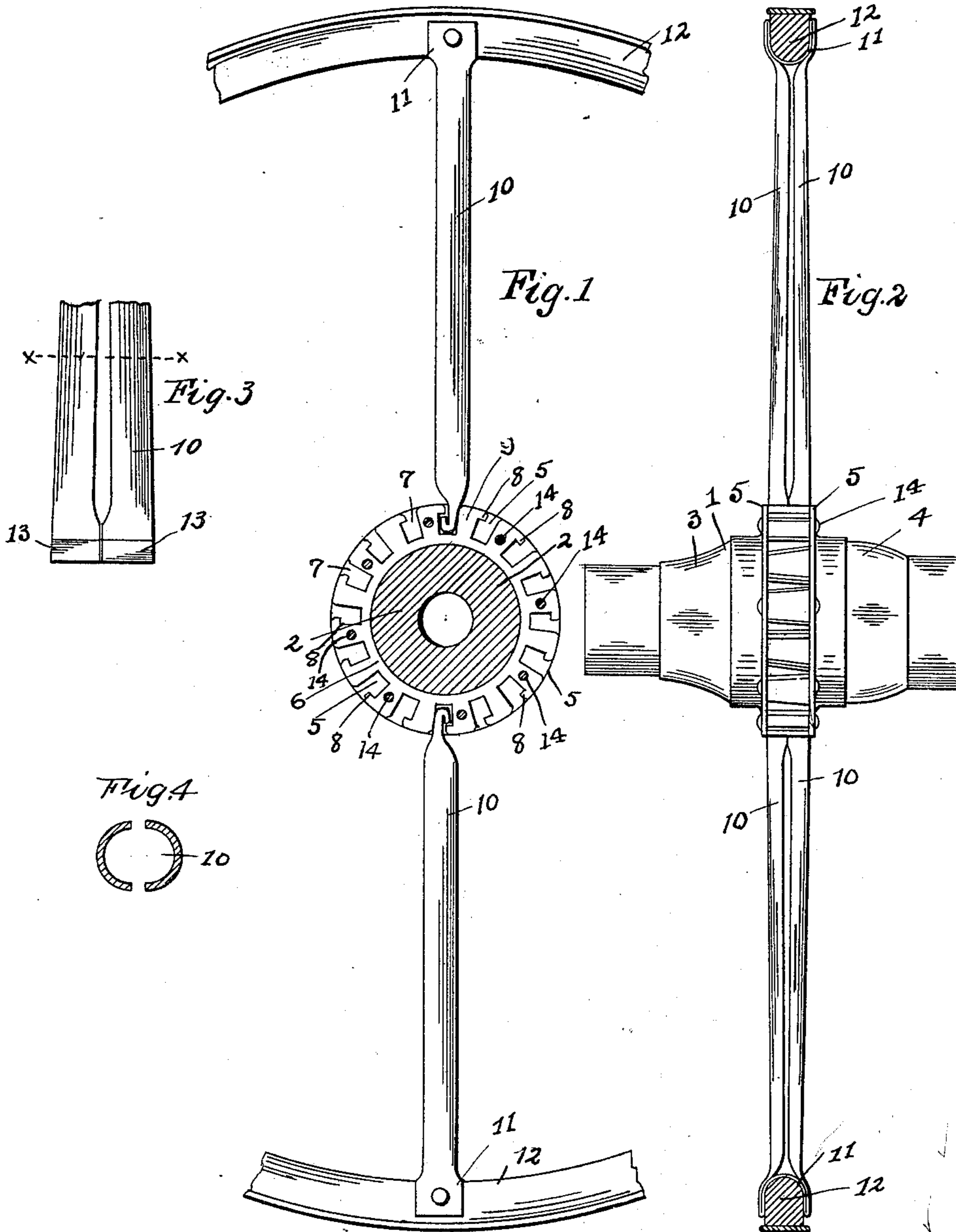
No. 668,908.

Patented Feb. 26, 1901.

C. C. DOLLISON.
WHEEL CONSTRUCTION.

(Application filed June 30, 1900.)

(No Model.)



WITNESSES:

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WHEEL CONSTRUCTION.

SPECIFICATION forming part of Letters Patent No. 668,908, dated February 26, 1901.

Application filed June 30, 1900. Serial No. 22,234. (No model.)

To all whom it may concern:

Be it known that I, CORDY C. DOLLISON, a citizen of the United States, residing at Lancaster, in the county of Fairfield and State of Ohio, have invented a certain new and useful Improvement in Wheel Construction, of which the following is a specification.

My invention relates to the improvement of wheels of that class which are adapted for use as vehicle-wheels; and the objects of my invention are to provide an improved wheel construction combining strength and durability and having its parts so constructed and arranged as to impart a desirable elasticity thereto, to provide an improved spoke construction and improved means for uniting the spokes with the hub and felly, and to provide other improvements, the details of which will be more fully pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a transverse section of the wheel-hub, showing the hub-spoke ring, two of the spokes, and portions of the felly in elevation. Fig. 2 is a view at right angles with that shown in Fig. 1. Fig. 3 is a view in elevation of the inner end portion of one of the spokes; and Fig. 4 is a transverse section of one of said spokes, taken on line $x x$ of Fig. 3.

Similar numerals refer to similar parts throughout the several views.

1 represents a wheel-hub, of which 2 is the tubular wooden body, the latter being inclosed on opposite sides of its center by metallic hub-sleeves 3 and 4, the inner ends of which are formed with outwardly-projecting clamping-flanges 5.

6 represents a spoke-containing ring of metal, which is adapted to fit over the wooden hub-body between the sleeve-flanges 5. This ring is provided with radially-arranged peripheral and transverse recesses 7, one for each spoke employed in the wheel. Each of these recesses, as indicated more clearly in Fig. 2 of the drawings, tapers toward one end or side of the ring, and the outer sides or mouths of the recesses are narrowed by the formation of laterally-projecting shoulders 8 on the outer portions of the ring teeth or lugs 9, which are formed between and by the production of the recesses 5.

10 represents the spokes of my improved wheel, each of which is formed, as indicated in the drawings, of one bar or strip of a suitable grade of sheet metal, this bar being doubled at its center and at its doubling-point depressed or bent downward to form a U-shaped bifurcation, as indicated at 11, adapted to receive a wheel-felly 12. The two arms of the spoke, which extend from the socket or bifurcation 11 to the hub, are half-round in cross-section, as indicated more clearly in Fig. 4, and have their edges adjacent to each other. At the inner end of the spoke the two substantially parallel arms thereof have their ends turned outward and upward, as indicated at 13, to form hooks or shoulders. The inner end portions of the spokes are sufficiently depressed or flattened, as shown in the drawings, to admit of their insertion within the recesses 5 of the spoke-ring through the larger ends of the latter, the hooks or shoulders 13 being thus made to engage the inner sides of the ring-shoulders 8. The inner shouldered ends of the spoke sections or arms are turned toward each other sufficiently to insure a slight separation of said arms throughout the length of the spoke.

It is obvious that the inner ends of the spokes are inserted within the ring-recesses prior to the fitting onto the hub of one of the sleeves 4. This sleeve, however, being pressed into place on the hub and the flanges of said sleeve made to embrace opposite sides of the ring 6, the ring-teeth 8 are rigidly secured to said flanges through the medium of transverse rings 14. The felly 12 is bolted or riveted to the outer socket portions of the spokes in the manner indicated in Fig. 1.

By the construction above described it will be seen that an exceedingly strong and durable construction of wheel is produced which will withstand great strain and weight and that the spokes are so formed and united with the hub as to prevent their working loose or rattling. It will also be observed that by the sectional or doubled construction of the spokes herein described a desirable spring or yielding quality is imparted to said spokes, which will tend to relieve the vehicle on which the wheels are used of the effects of jar or jolt caused by the wheels running over

rough places. Owing to the wedge or tapering shapes of the recesses 5 in the spoke-ring it will be seen that the shoulder-terminations 13 at the ends of the spokes may be inserted 5 from but one side of said ring and that in case of the breaking or injury of one of said spokes a new spoke may readily be inserted in its place by removing the rivets and withdrawing the sleeve 4 temporarily.

10 It will be observed that my improved wheel may be produced in a reliable and durable form at a comparatively low cost of manufacture.

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

In a wheel construction, the combination with a hub-body and a spoke-ring secured thereon, said spoke-ring having transverse spoke-receiving recesses in its periphery, of 20 spokes 10 each formed of a single piece of metal bent centrally upon itself, the inner ends of the arms of said spokes engaging said ring-recesses and the outer ends of said spokes being bent to form a substantially U- 25 shaped socket and a felly secured in said spoke-sockets, substantially as specified.

CORDY C. DOLLISON.

In presence of—

M. A. DAUGHERTY,
WM. DAUGHERTY.