

UNITED STATES PATENT OFFICE.

HOWARD W. DENHAM, OF GAINESVILLE, FLORIDA.

WHEEL-REPAIRING DEVICE.

SPECIFICATION forming part of Letters Patent No. 677,183, dated June 25, 1901.

Application filed November 30, 1900. Serial No. 38,267. (No model.)

To all whom it may concern:

Be it known that I, HOWARD W. DENHAM, a citizen of the United States, residing at Gainesville, in the county of Alachua and State of Florida, have invented new and useful Improvements in Wheel-Repairing Devices, of which the following is a specification.

My invention relates to improvements in wheel-repairing devices; and the objects of my improvements are, first, to provide a device for repairing spokes of wagon or buggy wheels when the spokes have become broken off near the felly; second, to provide a wheel-repairing device of simple and novel construction by means of which a vehicle-wheel can be quickly and easily repaired at the point most likely to be broken without the necessity of taking the wheel to a shop for that purpose; third, to provide a device for repairing certain parts of a vehicle-wheel without the necessity of employing a skilled mechanic to do the work, and, fourth, to provide a new article of manufacture in a wheel or spoke repairing device which can be made and sold at a very low price. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a face view of a section of a vehicle-wheel, showing my device in use on one of the spokes. Fig. 2 is a sectional detail view of a part of my wheel-repairing device. Fig. 3 is a sectional detail view of the barrel or body of my device. Fig. 4 is a sectional detail view of the plug to be inserted in the barrel of my device. Fig. 5 is a sectional detail view of a wrench expressly designed for inserting the plug E into the barrel A. Fig. 6 is an end view of the barrel A, and Fig. 7 is a top or face view of the plate B.

Similar letters and figures refer to similar parts throughout the several views.

A represents an oblong barrel provided with spiral threads on the inside extending up almost the entire length of the barrel, as shown in Fig. 3, and at some point on the outside surface of the barrel is provided an octagonal surface, as represented at L in Fig. 6, for the purpose of attaching thereto a common wrench.

B represents a plate of elliptical shape, as shown in Fig. 7, with a downwardly-projecting shank C rigidly secured thereto, said part

being round and adapted to loosely fit into the hole D, so that the plate B will rest on the end of the barrel A. Near the lower point of the shank C and extending around the same is a groove S. At a point in the barrel A, I provide a small threaded hole J, so that said hole will come opposite to the groove S when the plate B is resting on the end of the barrel A and the shank C is inserted in the opening D of the barrel A. I provide a screw K to be inserted in the hole J and to project inward beyond the shell of the barrel. A.

E represents a threaded plug to be inserted in the opening D of the barrel A, said plug E being provided with an oblong projection F.

G represents a round piece of material of any suitable length provided with a slot I across the upper end thereof.

H represents the hub of a wheel.

R represents the felly of a wheel, and Q represents the tire of a wheel.

1, 2, 3, 4, and 5 represent the spokes of the wheel.

Supposing the spoke 1 to be broken near the felly, as shown, and desiring to repair the same with my device, I proceed as follows: At a suitable distance from the end of the spoke I bore a hole M. I then saw the spoke into through the center of the hole M, after which it will appear as shown at N, spoke 2. I now drive a ferrule O over the end of the spoke, as shown in spoke 4, said ferrule being provided with a slot P across its end, as shown. I now insert the part C into the hole D until the plate B rests on the end of the barrel A. I now insert the screw K in the hole J a sufficient distance for the point of the screw to enter the groove S, thus locking the parts shown in Fig. 2 to the parts shown in Fig. 3.

By means of the wrench G, I insert the plug E into the hole D until the plug E comes into contact, or nearly so, with the part C. I then remove the wrench G and insert the end of the spoke 4, previously prepared, so that the slot P engages the part 1 in the manner previously assumed by the wrench G. Then by means of a common wrench I turn the barrel A to cause the plug E to travel down in the hole D, thus causing the barrel carrying the plate B to travel toward the felly R, and I continue turning the barrel A until the plate

B is tightly pressed against the under side of the felly R. I then bend the points of the plate B up tightly against either side of the felly R. The spoke will then be repaired and
5 will present the appearance shown by spoke 3, Fig. 1.

While I have shown and described the best form and construction known to me at this time, yet I do not wish to limit my invention
10 to the exact construction as shown and described, but reserve the right to make slight changes and modifications therein which will reasonably fall within the scope of my invention.

15 Having described my invention, what I

claim, and desire to secure by Letters Patent of the United States, is—

The combination, in a wheel-repairing device, of a barrel A with spiral threads in the opening through the center thereof, a plug E
20 adapted to be inserted in said opening, a plate B, of elliptical shape, with a shank C attached to the center thereof and means for securing the shank C loosely in the barrel A,
all substantially as shown and described. 25

H. W. DENHAM.

Witnesses:

J. M. RIVERS,

LEROY W. DENHAM.