No. 730,829. PATENTED JUNE 9, 1903.

M. KURZ & A. BEISER.

VEHICLE BRAKE.

APPLICATION FILED SEPT. 26, 1902.

NO MODEL.

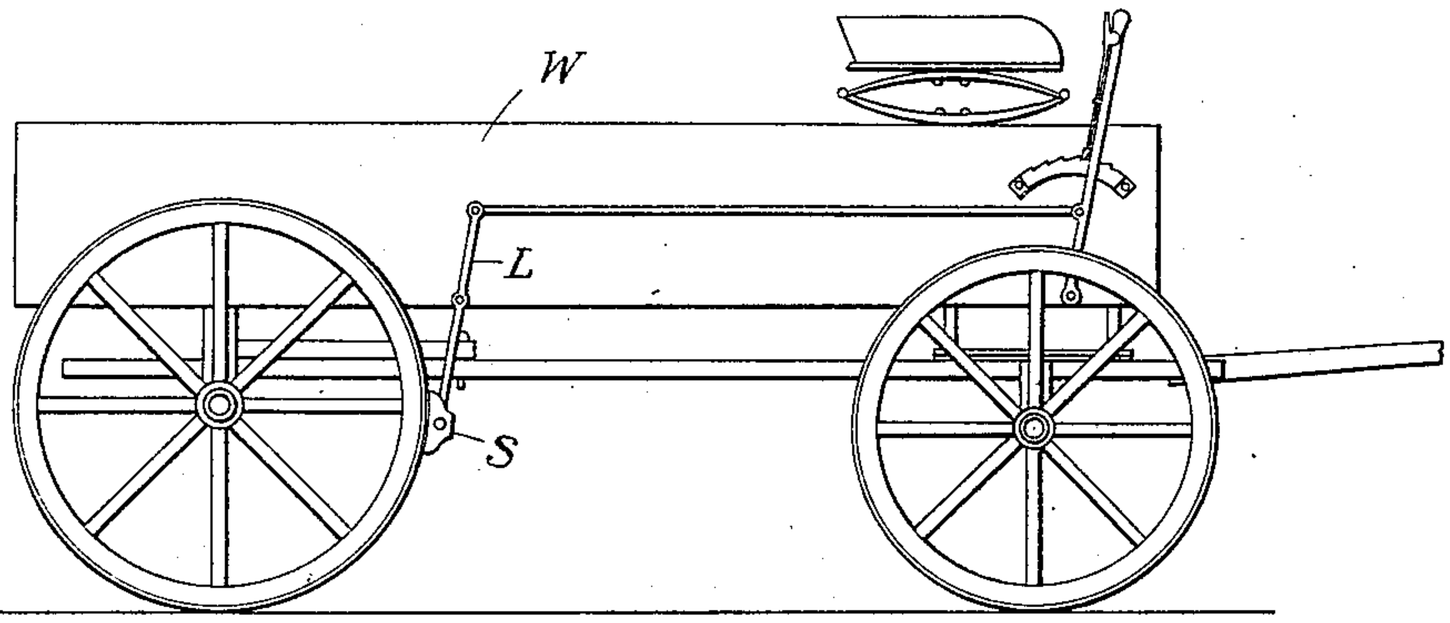

Fig. 1.

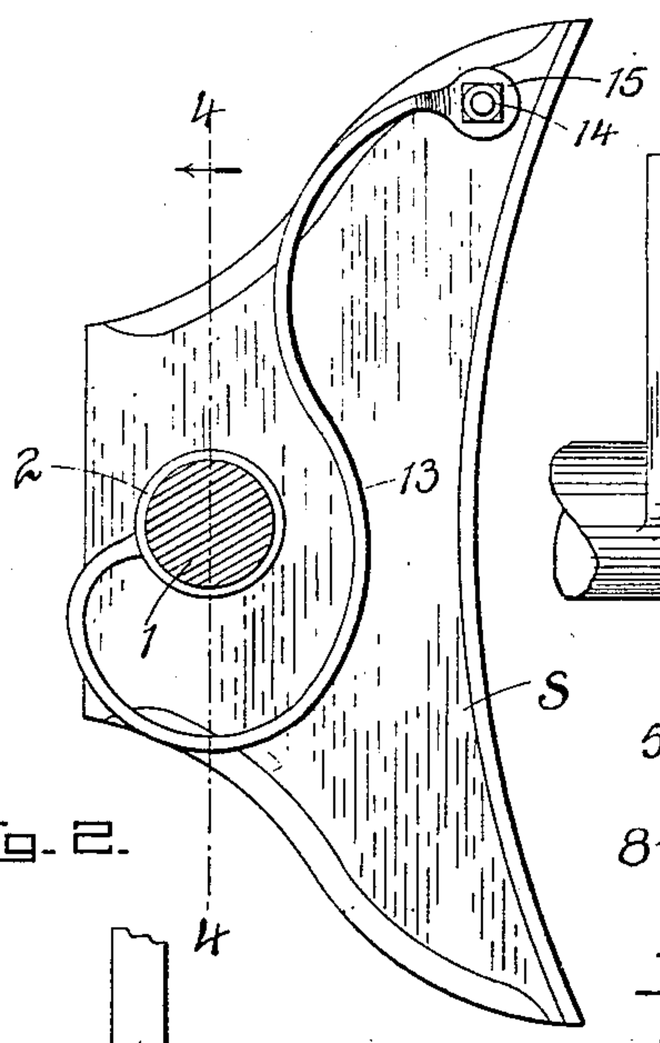

Fig. 2.

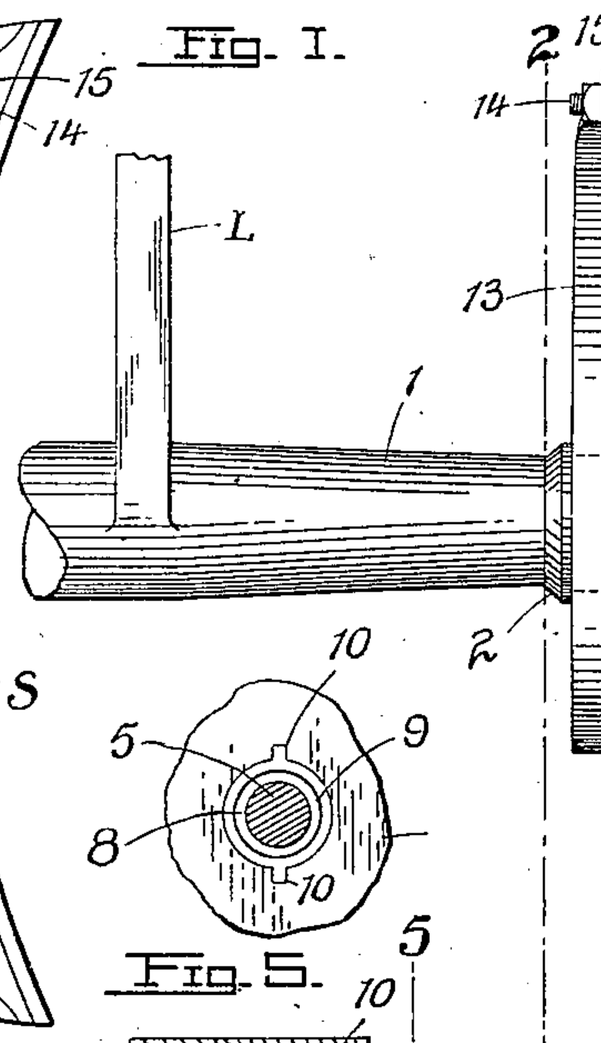

Fig. 3.

Fig. 5.

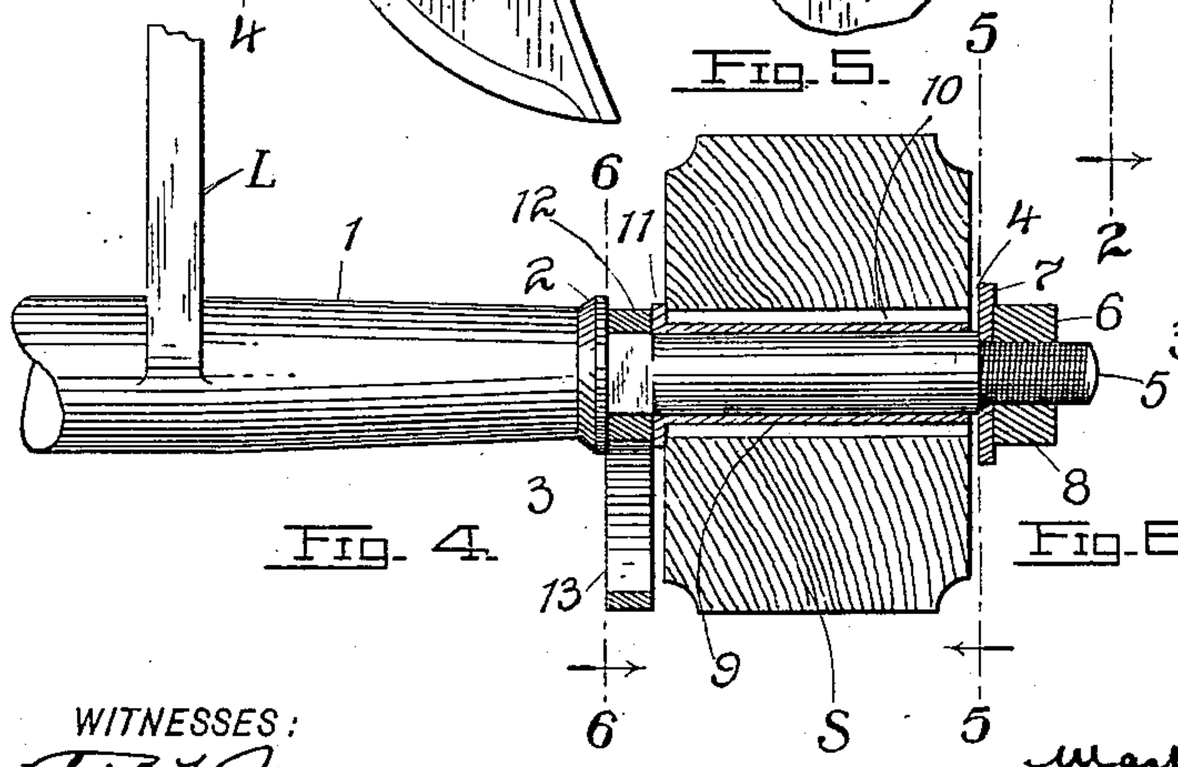

Fig. 4.

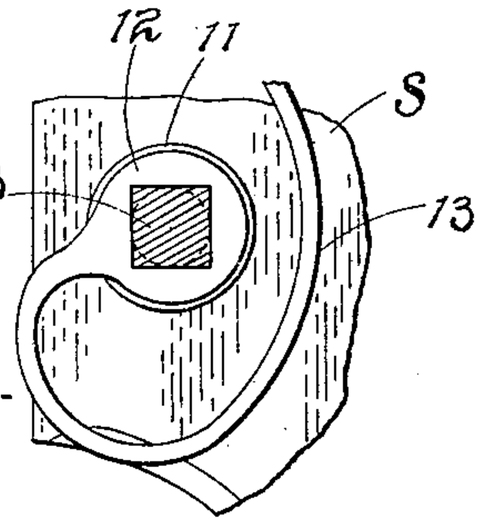

Fig. 6.

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UNITED STATES PATENT OFFICE.

MARTIN KURZ AND ADOLF BEISER, OF ST. LOUIS, MISSOURI.

VEHICLE-BRAKE.

SPECIFICATION forming part of Letters Patent No. 730,829, dated June 9, 1903.

Application filed September 26, 1902. Serial No. 125,000. (No model.)

To all whom it may concern:

Be it known that we, MARTIN KURZ and ADOLF BEISER, citizens of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Vehicle-Brakes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

Our invention has relation to improvements in vehicle-brakes; and it consists in the novel construction and arrangement of parts more fully set forth in the specification and pointed out in the claim.

In the drawings, Figure 1 is a side elevation of a vehicle, showing our invention applied thereto. Fig. 2 is a side elevation of the brake-shoe, being a vertical section on the line 2 2 of Fig. 3. Fig. 3 is a face elevation of the shoe. Fig. 4 is a vertical transverse section on the line 4 4 of Fig. 2, showing the supporting-spindle in elevation. Fig. 5 is a sectional detail on line 5 5 of Fig. 4, and Fig. 6 is a sectional detail on line 6 6 of Fig. 4.

The object of our invention is to construct a vehicle-brake which will insure positive contact of the face of the shoe with the tire of the wheel under all circumstances, no matter to what extent the shoe may have been worn.

In detail the invention may be described as follows:

Referring to the drawings, W represents an ordinary wagon or vehicle, and L the brake-lever of the general brake mechanism. (Shown in Fig. 1.) To the lower end of the lever L is welded or otherwise secured a lateral extension or arm 1, provided with a conical shoulder 2, a square or polygonal portion 3 adjacent thereto, and a cylindrical portion or spindle 4, the latter terminating in a reduced screw-threaded portion 5. The spindle 4 serves to support the brake-shoe S, which is freely rotatable about the same, being retained thereon by a nut 6 and washer 7, passed over the portion 5 on one side and by the portion 3 on the opposite side. The washer 7 bears against the shoulder 8, formed between the portions 4 and 5. The bore of the shoe is provided with a metallic tube 9, having longitudinal peripheral ribs 10, (to insure against possible loosening of the tube from the shoe,) the tube terminating in an expanded head 11, serving as a washer, the latter bearing against the looped end 12 of the bent spring 13, passed over the portion 3, the opposite or outer end of the spring being secured to the inner side wall of the shoe at a point adjacent to the end of the shoe by a bolt 14, over one end of which is passed a nut 15. By locating the spring exteriorly to the shoe, as indicated, the latter can be readily detached from the spring in case of repairs or for any other purpose, such as the substitution of a spring of one tension for another.

Reference to Fig. 4 will at once make it apparent that the several parts may readily be taken apart and put together again at a moment's notice. It is further apparent that the device is simple, inexpensive, light, and durable.

In the operation of the brake it is apparent that when the driver forces the shoe against the wheel the shoe being freely rotatable about its spindle will be likewise free to contact with its entire face against the tire, such contact being insured by the spring 13, which yields sufficiently to permit the shoe to adjust itself to the tire under any and all circumstances, so that by our arrangement the face of the shoe wears evenly and the even curvature of the face of the shoe is preserved indefinitely, and no matter what portion of the face of the shoe first contacts with the tire the resilient nature of the spring will permit it to at once adjust itself to a position insuring contact for the entire face.

It is of course apparent that we may depart from the present details without in any wise affecting the nature or spirit of our invention.

Having described our invention, what we claim is—

In a vehicle-brake, a brake-lever, an arm carried thereby, a shoulder on said arm, a polygonal portion adjacent to said shoulder, a spindle adjacent to the polygonal portion, a reduced screw-threaded extension at the outer end of the spindle, a shoe rotatably mounted on the spindle, a nut and washer passed over the screw-threaded extension, the washer bearing on the adjacent end of the spindle, a spring located exterior to the shoe and having

a loop passed over the polygonal portion of the arm, a bolt for securing the opposite end to the adjacent side wall of the shoe at a point contiguous to one end of the shoe, a ribbed tube lining the bore of the shoe, and an expanded head or washer at the inner end of tube bearing against the looped end of the spring, substantially as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

MARTIN KURZ.
ADOLF BEISER.

Witnesses:
EMIL STAREK,
ROSA ROSS.