

No. 691,856.

Patented Jan. 28, 1902.

G. P. HALL.
AXLE WRENCH.

(Application filed Nov. 8, 1901.)

(No Model.)

Fig. 1.

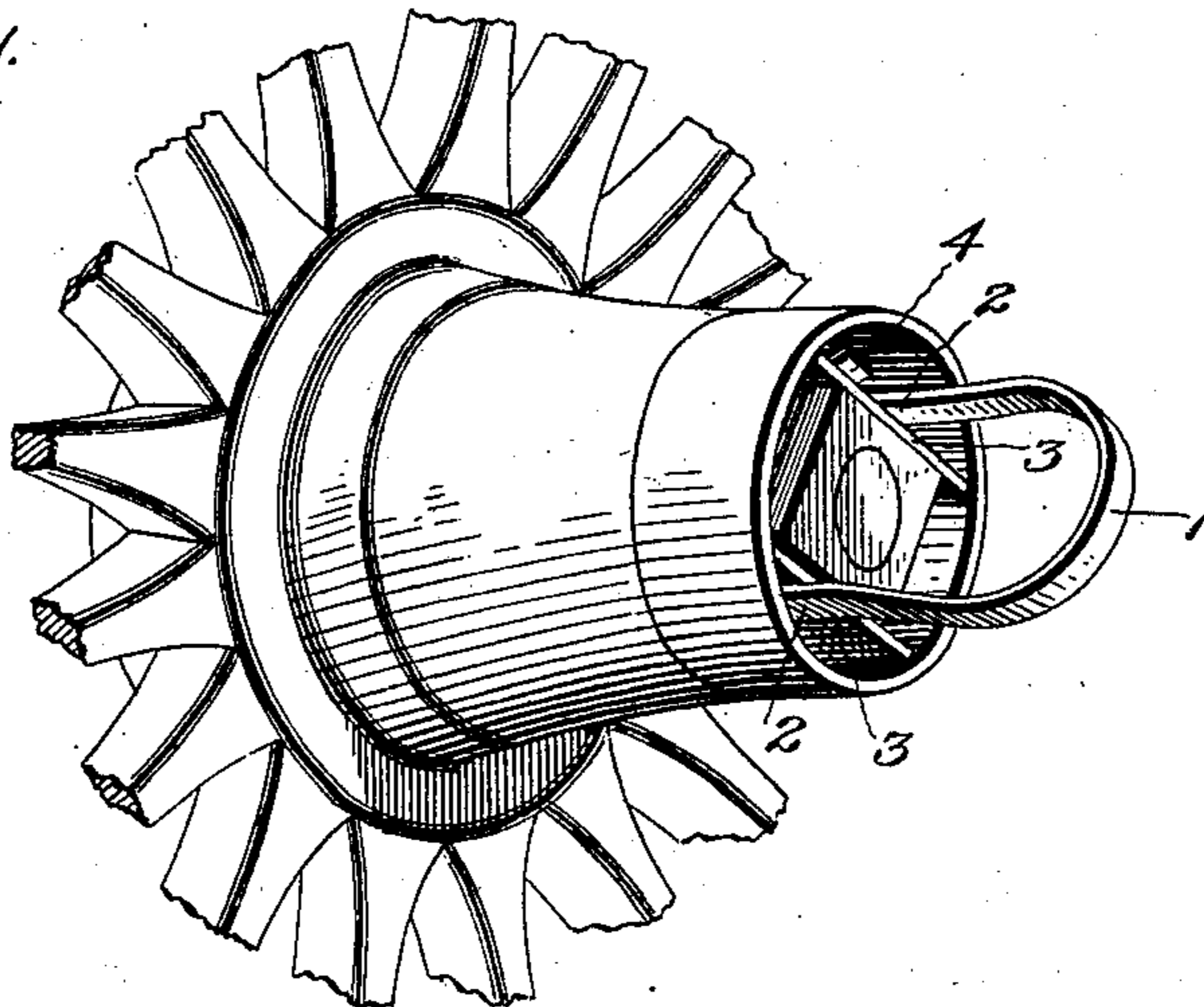


Fig. 2.

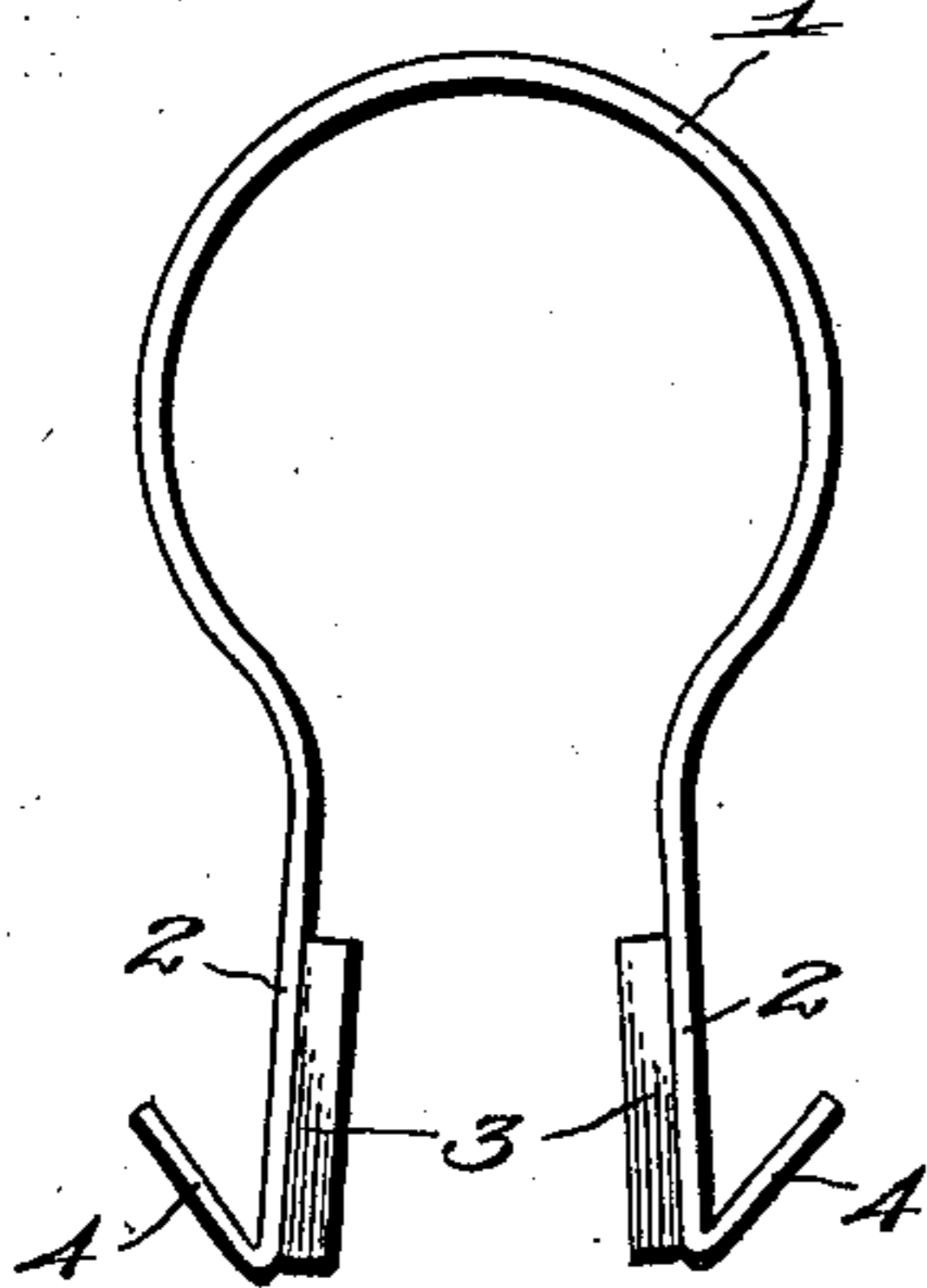
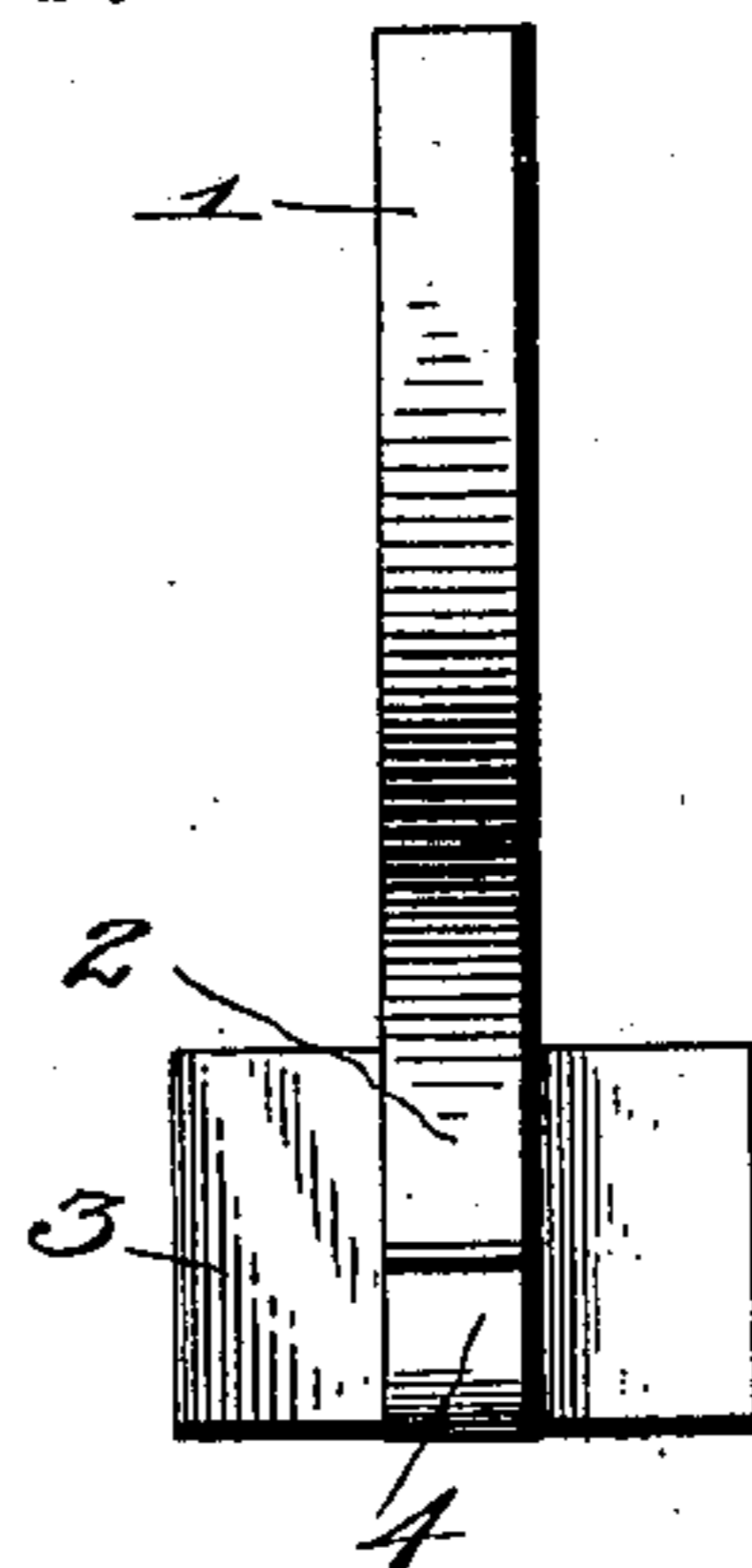


Fig. 3.



Inventor

George P. Hall.

Witnesses

C. E. Hunt
J. B. Wilson

By

A. B. Wilson & Co.

Attorneys

UNITED STATES PATENT OFFICE.

GEORGE P. HALL, OF BROOKINGS, SOUTH DAKOTA.

AXLE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 691,856, dated January 28, 1902.

Application filed November 8, 1901. Serial No. 81,601. (No model.)

To all whom it may concern:

Be it known that I, GEORGE P. HALL, a citizen of the United States, residing at Brookings, in the county of Brookings and State of South Dakota, have invented certain new and useful Improvements in Axle-Wrenches; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to axle-wrenches.

The objects of the invention are to provide a wrench of this character which shall be simple of construction, durable in use, comparatively inexpensive of production, easily applied, and by the use of which the axle-nut may be expeditiously removed and applied by the rotation of the wheel upon the axle.

With these and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, which will be hereinafter more fully described, and particularly pointed out in the appended claim.

In the accompanying drawings, Figure 1 is a perspective view illustrating the application of my invention. Fig. 2 is a plan view of the wrench, and Fig. 3 is a side view of the same.

The wrench consists of a bowed spring 1, the ends of which extend parallel, as shown at 2, and are provided with transversely-arranged fixed parallel jaws 3 and outwardly-projecting inclined spring-lips 4. The lips 4 extend at an acute angle to the ends 2 and jaws 3 and are integrally formed with and movable toward and from said ends 2. When pressure falls upon the outer surfaces of these lips, said lips yield toward the sides 2, and when pressure is removed therefrom spring outwardly from said sides to the position shown, the resistance of said lips to a backward movement toward the jaws adapting them to bind firmly and securely against the surface with which they are to be engaged.

In applying the device the bowed spring is compressed, and in this position the jaws are slipped into the end of the hub and engaged with the axle-nut, the spring-lips 4 engaging the hub and preventing the accidental displacement of the wrench. In this position the wheel is rotated in a backward direction, and as the wrench is fixedly held to the hub it follows that the nut will be unscrewed, thus permitting the wheel and nut to be removed from the axle and the nut held in the hub of the wheel when thus removed in proper position for engagement with the axle when the wheel is slipped onto the axle.

From the foregoing description, taken in connection with the accompanying drawings, the construction, mode of operation, and advantages of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof.

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

An axle-wrench consisting of a bowed spring formed of a single strip of metal and having parallel portions, transversely-arranged parallel jaws secured to said parallel portions, and spring-lips forming continuations of said parallel portions and extending at an acute angle to the parallel portions and to the jaws, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GEO. P. HALL.

Witnesses:

W. H. RODDLE,
PHILO HALL.