

A. R. FELLOWS.
SHOCK ABSORBING HUB.
APPLICATION FILED JUNE 4, 1910.

1,014,136.

Patented Jan. 9, 1912.

FIG. I.

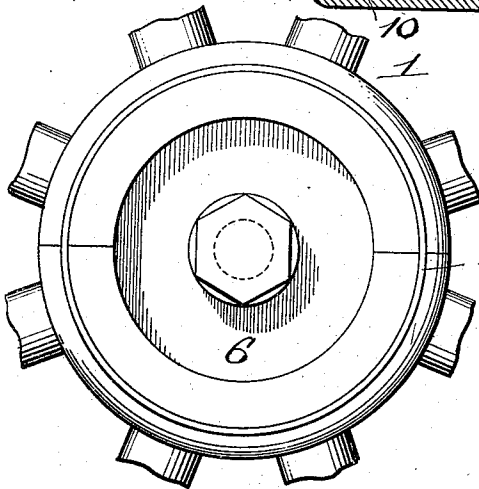
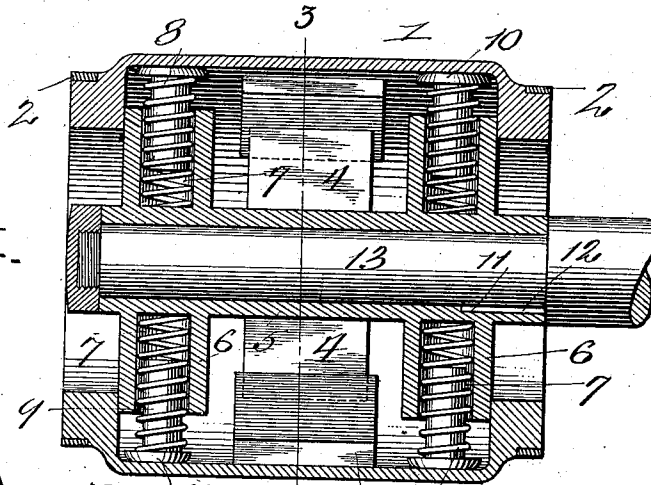


FIG. 2.

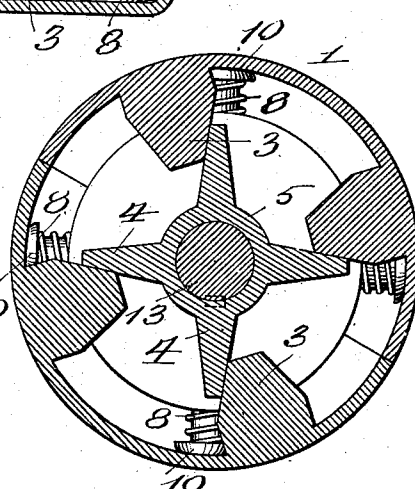


FIG. 3.

FIG. 4.

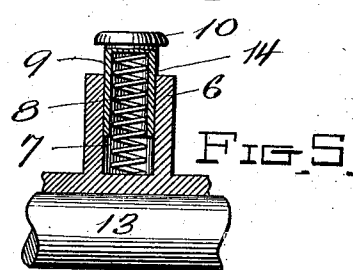
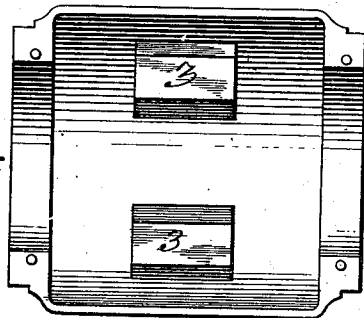


FIG. 5.

Witnesses

J. Milton Jester
Frank G. Brewster

Inventor

Allen R. Fellows
By *Wm. J. Phelps*
Attorney

UNITED STATES PATENT OFFICE.

ALLEN R. FELLOWS, OF SIOUX FALLS, SOUTH DAKOTA.

SHOCK-ABSORBING HUB.

1,014,136.

Specification of Letters Patent.

Patented Jan. 9, 1912.

Application filed June 4, 1910. Serial No. 565,098.

To all whom it may concern:

Be it known that I, ALLEN R. FELLOWS, a citizen of the United States, residing at Sioux Falls, in the county of Minnehaha and State of South Dakota, have invented certain new and useful Improvements in Shock-Absorbing Hubs, of which the following is a specification.

The invention relates to shock-absorbing hubs for vehicle wheels; and it consists of an outer sectional shell, and an inner box or sleeve provided with power-impelling devices, and with a plurality of annular members carrying shock-absorbing devices.

The invention also consists of the novel construction and arrangement of the several parts, and their general combination, as will be hereinafter fully described and briefly stated in the claims.

The principal object of the invention is to so construct a vehicle wheel, that shock caused by the wheel striking or coming into contact with objects while running, will be absorbed.

Other objects of the invention will become apparent upon a complete disclosure thereof.

In the drawings; Figure 1 is a longitudinal sectional view of my improved hub; Fig. 2 is an outer end view; Fig. 3 is a central transverse section; Fig. 4 is a plan view of the inner surface of one of the hub-sections, and Fig. 5 is a detail sectional view showing a slightly modified form of spring pin.

Referring to the several views of the drawings, the numeral 1 indicates the outer shell of the hub, which is composed of two longitudinal sections securely held together by bands 2, 2. The inner wall of the outer shell is provided with a plurality of inwardly-projecting blocks 3, approximately wedge-shape in form, adapted to be engaged by power-impelling devices or arms 4, projecting from a box or sleeve 5. Each end of the box is provided with an annular member 6, provided with a plurality of sockets 7 in which are seated coiled or spiral springs 8, and operative within each spring is a pin 9 provided with a head 10, against which the outer end of the spring rests. The inner wall of the box is provided with a spline 11, in which a feather or key 12 on the arm 13 of a rotatable axle, is adapted to fit and lock the axle arm to the box. The power impelling arms, by engaging the blocks 3, serve to propel the wheel when the axle, which is locked to the box, is rotated in

either direction, said blocks being spaced apart a sufficient distance to allow for a slight rotary movement of the wheel, in either direction, before being engaged by the power arms, so that any tendency to a jerky motion in starting, or jolting motion in stopping, is obviated.

It will be noted that the outer face of each annular member rests snugly against the inner surface of each end of the hub-shell, so that dust and dirt is prevented from entering the interior of the hub. It will also be noted that the heads of the pins 9 rest normally against the smooth inner surface of the hub-shell, so that when any object or obstruction in the roadway is encountered or struck by the wheel, or in running over uneven or irregular surfaces, the shock will be cushioned or absorbed by the springs, thus obtaining easy-riding qualities for the vehicle having wheels provided with my improved hub.

In the modification shown in Fig. 5, the pin 3 is provided with a socket 14 which adapts it to receive the spring 8 which, in this form, is interposed between the pin and the bottom of the socket 7.

Various modifications or changes in the details of construction, such as increasing or decreasing the number of shock-absorbers, or increasing or decreasing the number of power-impelling arms and engaging-blocks, may be made without departing from the spirit of my invention or sacrificing the principle thereof.

Having thus described my invention, what I claim is:

1. A shock-absorbing hub for vehicle wheels, comprising a longitudinally-divided shell, an axle box provided adjacent its opposite ends with annular, integral disks having sockets in their peripheries, said disks serving to close the respective ends of the hub, and spring-pressed pins operating in said sockets, whereby the box is yieldingly sustained in concentric relation with the outer shell.

2. A shock-absorbing hub for vehicle-wheels, comprising a longitudinally-divided shell, an axle-box provided adjacent its opposite ends with annular, integral disks having sockets arranged in their peripheries, said disks serving to close the respective ends of the hub, spring-pressed pins operating in said sockets to yieldingly sustain the box in concentric relation with the shell, contact-

ing devices arranged on the inner surface of the shell, and power-impelling arms carried by the box and adapted to engage said contacting devices, whereby the shell may be
5 revolved with said box.

3. A shock-absorbing hub for vehicle wheels, comprising a longitudinally-divided shell, an axle-box provided adjacent its opposite ends with annular, integral disks having sockets in their peripheries, said disks
10 serving to close the respective ends of the hub, spring-pressed pins operating in said sockets to yieldingly sustain the axle-box

in concentric relation with the shell, studs projecting from the inner surface of the
15 shell, and power-impelling arms, carried by the axle-box, adapted to engage the projecting studs, whereby said axle-box and shell may be propelled in unison.

In testimony whereof I affix my signature
20 in presence of two witnesses.

• ALLEN R. FELLOWS.

Witnesses:

JNO. A. KLEPP,

NEIL C. GUNNISON.

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