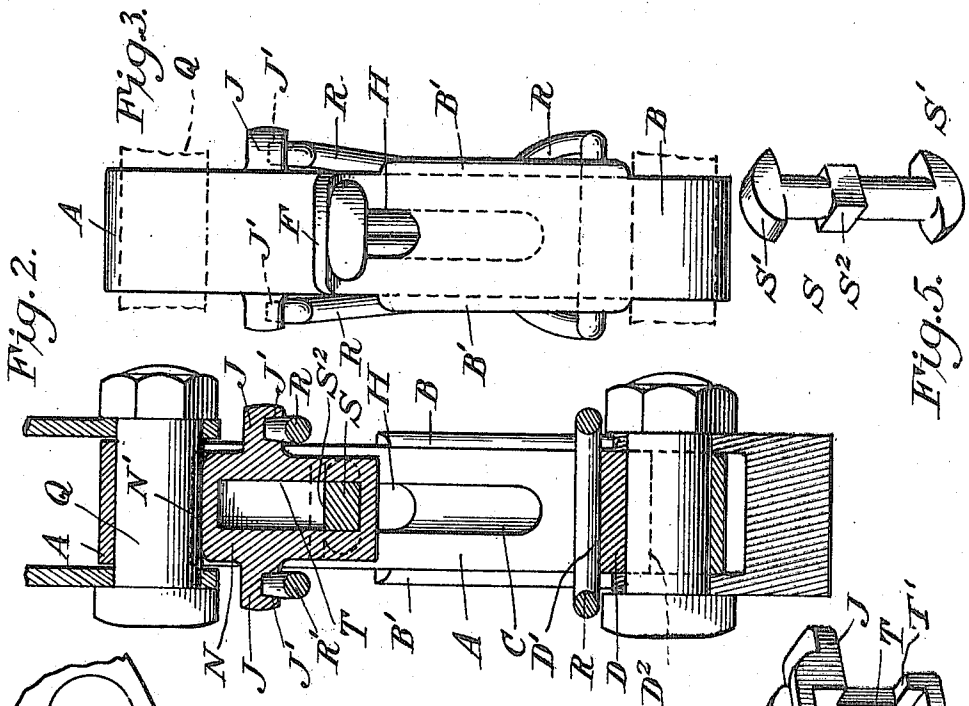
J. PRONOVOST.

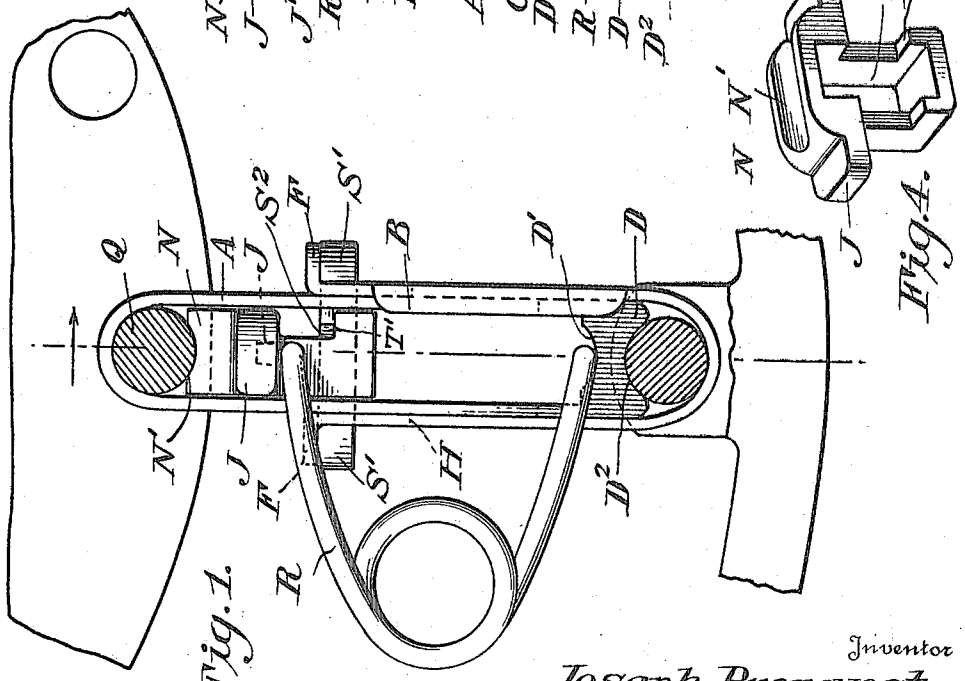
SPRING FRAME FOR RESILIENT WHEELS.

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1,220,890.

Patented Mar. 27, 1917.





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SPRING-FRAME FOR RESILIENT WHEELS.

1,220,890. Specification of Letters Patent. Patented Mar. 27, 1917.

Application filed October 14, 1916. Serial No. 125,624.

To all whom it may concern:

Be it known that I, JOSEPH PRONOVOST, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Spring-Frames for Resilient Wheels; and I do hereby 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in a spring frame for use upon vehicle wheels, and the object in view is to produce a simple and efficient device of this nature so arranged as to check up the vibrations incident to a wheel passing over a rough road or obstructions, and consists in the provision of a simple and efficient device of this nature having various details of construction and combinations and arrangements of parts which will be hereinafter fully described and then specifically defined in the appended claims.

My invention is illustrated in the accompanying drawings which, with the letters of reference thereon, form a part of this application, and in which—

Figure 1 is a side elevation of one of my improved spring frames for use upon vehicle wheels.

Fig. 2 is a central vertical sectional view through the device.

Fig. 3 is an end view, and

Figs. 4 and 5 are perspective views of details of the invention.

Reference now being had to the details of the drawings by letter, A and B designate two U-shaped members which are adapted to have sliding contact with each other. The member A is provided with elongated slots C which are in registration with each other, and at one end of the member A is a closure D having an inner concaved face D′ and an outer concaved face D^2. The member B has guide flanges B′ upon opposite edges designed to guide the member A in its longitudinal movements, and the ends of the member B are bent laterally as at F, and each end of the member B is provided with a slot H, which slots H are opposite each other.

A block designated by letter N has a groove N′ in one edge adapted to engage a pin Q attached to the hub of a wheel, which pin is interposed between the block and one end of the U-shaped member A. Said block is provided with oppositely disposed lugs J having indentures J′ in corresponding faces adapted to be engaged by the ends of the coil spring R, which latter is bent at its longitudinal center and engages the concaved face D′ of the closure member D.

The block N is provided with an elongated slot T adapted to receive the locking pin or key S having arrow-head ends S′. Said pin S, it will be noted, has intermediate its heads and spaced apart therefrom at unequal distances, a square outlined portion S^2 and which, when positioned within the slot of the block, serves as a means for preventing the pin or key from rotating. The portions intermediate the squared part and arrow heads are cylindrical, forming means whereby the pin may be rotated when the key is moved so that the squared portion will turn in the recesses T′ formed in the walls of the slot T formed in the face of the block. This provision of the peculiar construction shown and described with reference to the pin and block is to form means whereby the pin or key may be held in locked relation or unlocked and readily removed when desired.

When the key is in a locked position, as shown by solid lines in the side elevation, the key will be held from turning not only by the square part thereof engaging the opposite walls of the slot and block, but also by the wings of the heads engaging the angled ends of the member B.

When the parts are assembled and it is desired to take the same apart, the ends of the resilient spring are removed from the indentures in the lugs on the block. and the block is moved a short distance toward the end engaged by the central portion of the spring, said block first being turned through 90 degrees. The key is then moved longitudinally in one direction a distance equal to the length of the squared part of the key, after which the block is turned back to its former position which will permit the key to be pulled out through the registering openings in the block and the two members A and B.

In assembling the parts, U-shaped members A and B are placed in sliding relation

with each other and the block inserted intermediate the walls of the member A with its slot in registration with the slots of the members A and B. The key is then manipulated and the further operation in the assembling of the parts is the reverse to that of the disassembling as above described.

By the provision of spring frames made in accordance with my invention and which are employed in place of the usual rigid spokes of a wheel, the vibration incident to a wheel equipped with the device passing over a rough road may be completely absorbed. Owing to the simplicity of the device, the parts being reduced to a minimum, and the ease with which the device may be disassembled, any broken parts may be readily replaced with new ones.

What I claim to be new is:—

1. A spring frame for vehicle wheels, comprising two U-shaped members having sliding connection with each other and provided with oppositely disposed registering slots, a block mounted between one of the members, a spring having ends bearing against said block and an intermediate portion bearing against the end of the member, and a key passing through said slots in the members and block and serving to hold the parts together, as set forth.

2. A spring frame for vehicle wheels, comprising two U-shaped members having sliding relation with each other and with registering slots in their opposite walls, a slotted block mounted between the walls of one of said members and having a recess in one edge, a headed key adapted to pass through registering slots in the members and block and provided with a square outlined portion for engagement with the walls of the slot in the block to prevent the key from turning, and a spring bearing against said block and one end of one of said members, as set forth.

3. A spring frame for vehicle wheels, comprising two U-shaped members having sliding relation with each other and with registering slots in their opposite walls, a slotted block mounted between the walls of one of said members and having a recess in one edge, a headed key adapted to pass through registering slots in the members and block and provided with a square outlined portion for engagement with the walls of the slot in the block to prevent the key from turning, said block having lugs projecting therefrom with indentures therein, and a spring bearing against one end of one member and its other end engaging said indentures of the lugs, as set forth.

4. A spring frame for vehicle wheels comprising two sliding U-shaped members, one of said members having a closure at one end with its faces concaved, the opposite edges of one side of one of said members having flanges to guide the other member, the two members having elongated slots in the walls thereof, a slotted block with a recess in one face and oppositely disposed lugs upon the edges of the block with indentures, a key adapted to pass through registering slots in the members and block, and a spring bearing against one of said concaved faces of the closure and provided with ends which engage said indentures, as set forth.

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

JOSEPH PRONOVOST.

Witnesses:
H. HENRY HART,
FLOYD W. WARNER.

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