T. K. COOPER.

CUSHIONING DEVICE FOR FOOT LEVERS.

APPLICATION FILED SEPT. 10, 1913.

1,156,586. Patented Oct. 12, 1915.

Fig. 1.

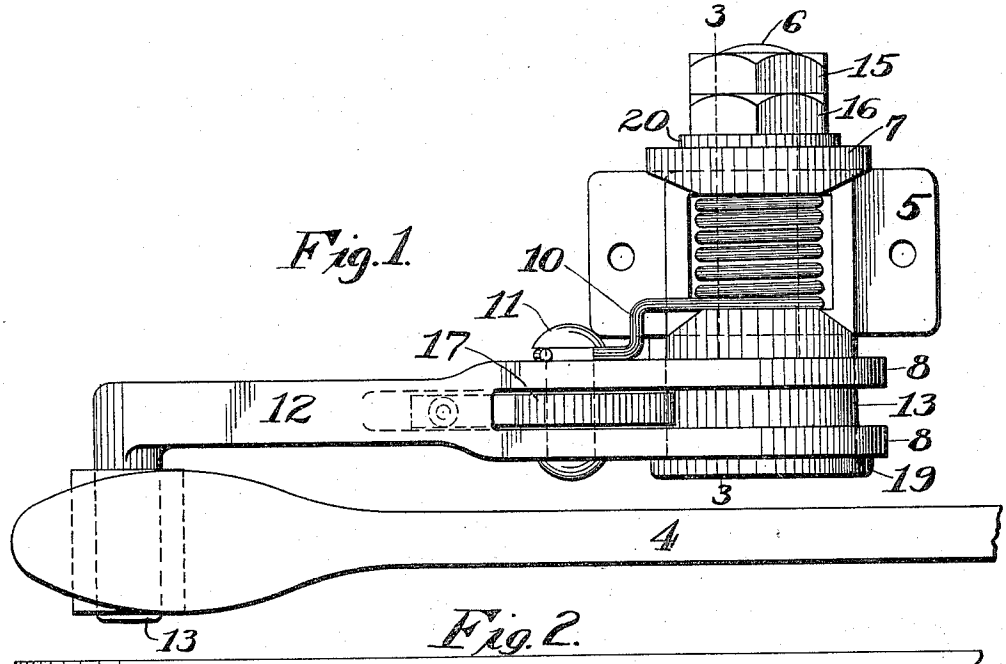


Fig. 2.

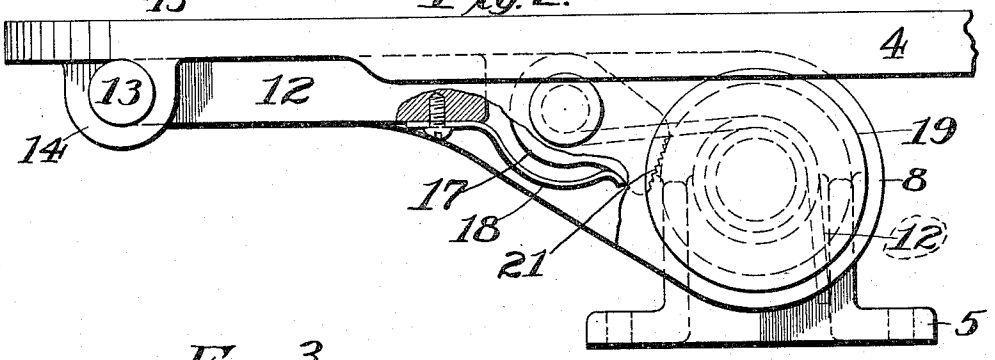
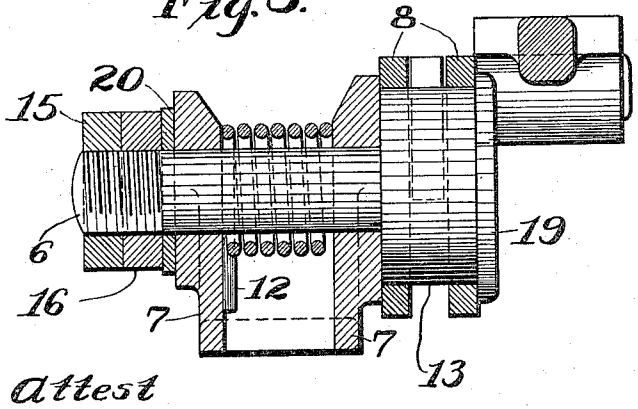


Fig. 3.



Attest

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UNITED STATES PATENT OFFICE.

THOMAS K. COOPER, OF ST. LOUIS, MISSOURI.

CUSHIONING DEVICE FOR FOOT-LEVERS.

1,156,586. Specification of Letters Patent. Patented Oct. 12, 1915.

Application filed September 10, 1913. Serial No. 789,062.

To all whom it may concern:

Be it known that I, THOMAS K. COOPER, a citizen of the United States, residing at the city of St. Louis, in the State of Missouri, have invented new and useful Improvements in Cushioning Devices for Foot-Levers, of which the following is a specification.

My invention relates to cushioning devices for foot levers, and has for its object to provide an auxiliary mechanism to be installed beneath foot levers which are subjected to long periods of use without intermission, to relieve the foot of the operator from the strain incident to the use of such foot levers; the foot levers particularly contemplated by my invention being those of automobiles, where the foot of the operator is subjected to more or less violent shock or vibration, with the frequent result of lameness or soreness after long continuous runs.

In the drawings, Figure 1 is a top plan view of a device embodying my invention, applied to the foot throttle-lever of an automobile. Fig. 2 is a side elevation of the cushioning device. Fig. 3 is a transverse sectional view of the same, taken on the line 3—3 of Fig. 1.

In the drawings the foot throttle-lever 4 is the lever to be cushioned, and is provided at or near its front end with the bearing 14, to receive the stud 13 which projects laterally from the lever-bar 12. The lever-bar 12 terminates in the bearing-plates 8—8, which are mounted on the cylindrical block 13 (see Fig. 3), the block 13 being mounted on the bolt 6. The bolt 6 has a circular head 19, whose diameter is larger than that of the block 13, and the bolt 6 passes through the standards 7—7, and is provided with the washer 20, and nuts 15 and 16 are employed to lock it in place, with such degree of tightness as may be desired.

Between the standards 7—7 the coiled-spring 10 is mounted, surrounding the bolt 6, one end of the spring 10 being secured against the inner face of one of the standards 7, and the other end being secured to the pintle 11, which pintle 11 also serves to carry the dog 17, whose serrated jaw 21 engages with the peripheral face of the cylindrical block 13, a curved spring 18 serving to exert an upward thrust against the dog 17, as shown in Fig. 2. By the means thus described, the operator's foot, resting on the lever 4, is operating against the lever-bar 12, so that accurate control of the lever 4 is secured, and the jarring effect of shocks imparted to the lever 4, and thence to the foot, is greatly lessened.

The standards 7—7 extend upwardly from a base-plate 5, which is fixed upon the bed above which the foot-lever 4 is operatively mounted, in such position that the foot-lever 4 and lever-bar 12 are parallel and operate in parallel vertical planes. By means of the described construction, the tension of the lever-bar 12 is capable of the exact adjustment desired by the particular user, without impairing the efficiency of the foot-lever 4, and the throttling or other mechanism controlled by it; thus securing the user from the foot-soreness incident to the use of the uncushioned foot-lever for a considerable continuous length of time.

While the device of my invention is peculiarly adapted for use in conjunction with a throttle lever of an automobile, it is capable of like beneficial use with other forms of foot-lever employed in moving or stationary machinery.

The frictional engagement between the contacting surfaces of the adjacent standard 7 and bearing plate 8 is varied in degree by tightening or loosening the nuts 16 and 15, so that the tension of the lever bar 12 is adjusted and modified to suit the strength and requirements of the operator.

Having thus described and disclosed my invention, what I claim as new and characteristic of my invention, and desire to have secured to me by the grant of Letters Patent, is—

1. In a cushioning device for foot levers, in combination, a standard; a bolt mounted through said standard; a cylindrical block carried by said bolt: a lever-bar mounted around said block; a dog carried by said lever-bar; and spring-mechanisms for yieldingly holding the lever-bar in normal posi- for holding the dog in contact with the the peripheral face of the block.

2. In a cushioning device for foot levers, in combination, a standard; a bolt mounted through said standard; a cylindrical block carried by said bolt; a lever-bar mounted

around said block; a dog carried by said lever-bar; a spring-mechanism of adjustable tension for yieldingly holding the lever-bar in normal position; and a spring-mechanism for holding the dog in contact with the peripheral face of the block.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses.

THOMAS K. COOPER.

Witnesses:
N. E. BROCKMAN,
F. E. WEBER.

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

Correction in Letters Patent No. 1,156,586.

It is hereby certified that in Letters Patent No. 1,156,586, granted October 12, 1915, upon the application of Thomas K. Cooper, of St. Louis, Missouri, for an improvement in "Cushioning Devices for Foot-Levers," an error appears in the printed specification requiring correction as follows: Page 1, line 100, for the syllables "posi-" read *position and;* and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 9th day of November, A. D., 1915.

[SEAL.]

J. T. NEWTON,

Acting Commissioner of Patents.