No. 778,573 PATENTED DEC. 27, 1904.

J. H. DUNSFORD.

SPRING HANDLE BAR.

APPLICATION FILED APR. 25, 1903.

Fig. 1.

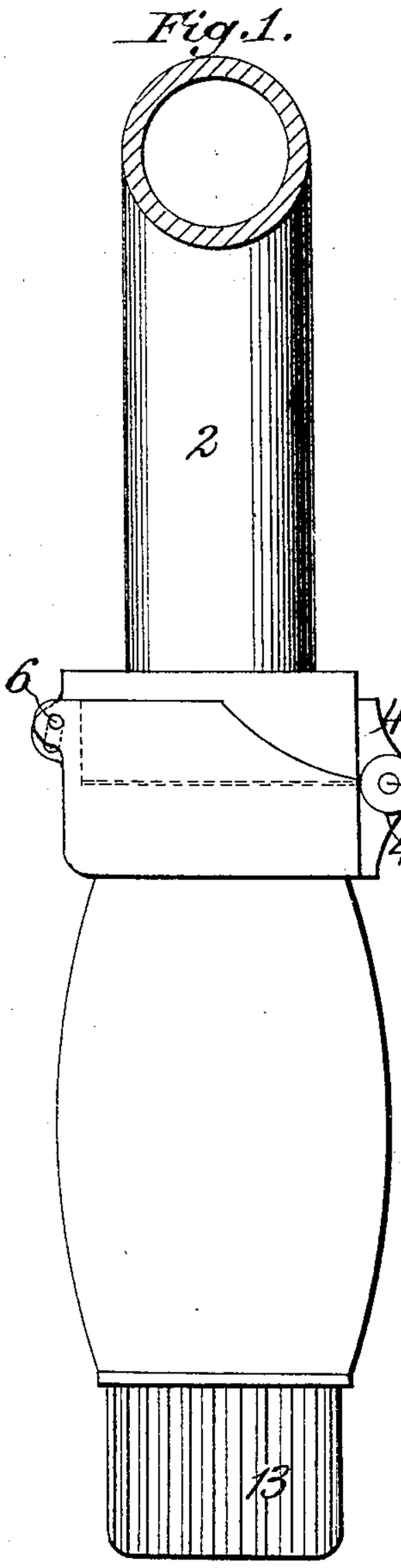


Fig. 2.

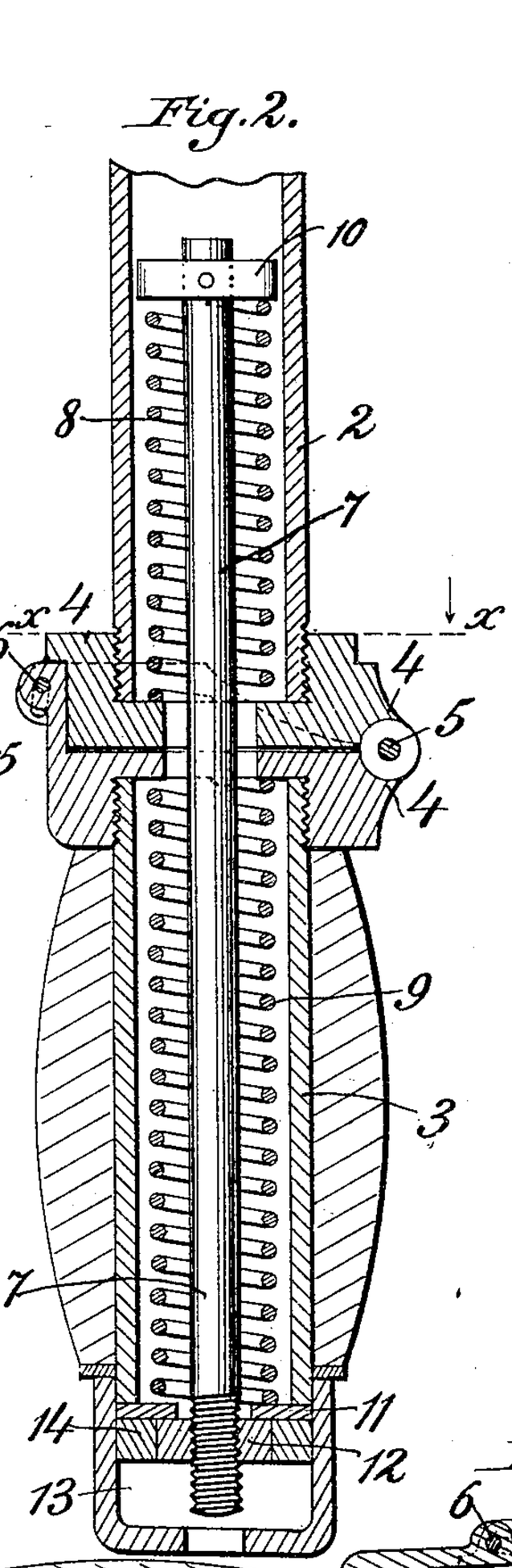


Fig. 4.

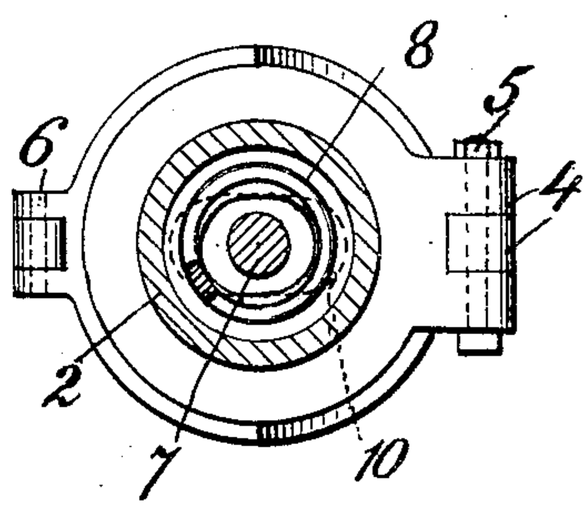
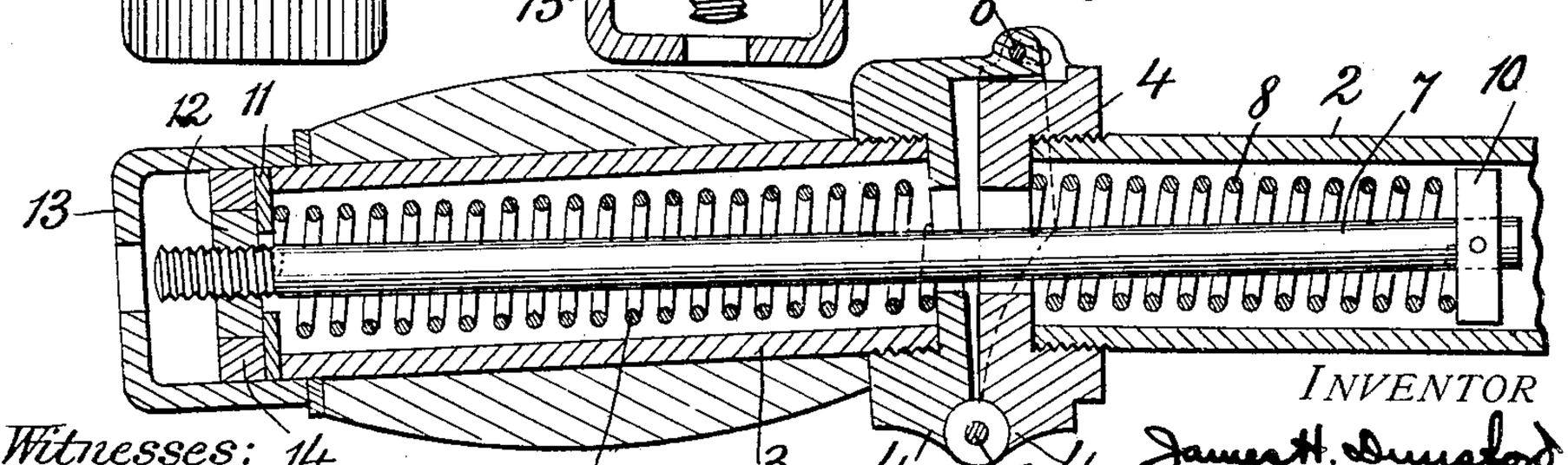


Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

JAMES HARTLEY DUNSFORD, OF WINNIPEG, CANADA.

SPRING HANDLE-BAR.

SPECIFICATION forming part of Letters Patent No. 778,573, dated December 27, 1904.

Application filed April 25, 1903. Serial No. 154,270.

To all whom it may concern:

Be it known that I, JAMES HARTLEY DUNSFORD, agent, of the city of Winnipeg, in the Dominion of Canada, have invented new and useful Spring Handle-Bars for Bicycles, of which the following is a specification.

This invention relates to a spring handle-bar which may be effectively used in various ways, for example, in connection with a bicycle; and the object of the invention is to provide a simple device of this character of such construction as to relieve a rider's wrists and muscles of the arms from the usual jolts and jars when the front wheel of his bicycle or like vehicle passes over stones, lumps, and other obstructions.

The improved device is illustrated in one simple and convenient embodiment thereof in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a portion of a handle-bar involving the invention. Fig. 2 is a longitudinal sectional elevation of the same, the parts being in the position they are shown as occupying in Fig. 1—that is, the normal position. Fig. 3 is a view similar to Fig. 2, but showing the handle or grip portion of the bar as shifted downward. Fig. 4 is a transverse section of the same.

Like characters refer to like parts throughout the several figures.

In Figs. 1, 2, and 3 of the drawings I have illustrated a portion of a handle-bar including my invention, and the same consists of a main or body section 2 and an auxiliary or handle-grip section 3. These parts are tubular and are connected by a hinge, as 4, one member of the hinge being apertured to receive the other, by reason of which lateral motion of said hinge members is positively prevented. The two members of the hinge are united—say by screw-threaded joints—with the adjacent ends of the two parts of the handle. The pivot-pin which connects the two members of the hinge is designated by 5. The outer or handle-grip section 3 of the device has an up-and-down movement relatively to the main or body section, the pin 6 being provided to limit such movement. The pin 6 projects through a perforation in one of the hinge members and through an elongated slot in the other one to secure the desired function.

The numeral 7 denotes a rod or bolt, shown as inclosed by the sections 2 and 3 and as passing through oblong registering slots in the two members of the hinge 4. The rod 7 is surrounded at opposite sides of the hinge 4 by coiled springs, as 8 and 9, respectively. The spring 8 is housed by the tubular main section of the handle-bar 2 and bears at one end against the inner member of the hinge 4 and at its opposite end against the collar 10. The collar 10 is fastened to the rod or bolt 7 at or near its inner end, and for this purpose any desirable means may be provided—for example, a pin. The spring 9 bears at its inner end against the outer member of the hinge 4, it being inclosed by the handle-grip section of the article. The outer end of the coil-spring 9 bears against a washer 11, which fits against the inner face of the nut 12, threaded onto the outer end of the rod 7. Said nut 12 is inclosed by the hollow cap 13, which is freely slipped over the outer end of the handle-grip portion or section 3, the nut 12 being rotative with said cap or thimble 13. For this purpose the nut 12 fits snugly in a seat formed in the part 14, suitably fastened inside of said cap or thimble. The exterior surface of the cap or thimble is corrugated to facilitate its rotation. When the said cap or thimble is turned, the nut 12 will be turned in the corresponding direction, so as to thereby regulate the tension of the springs 8 and 9.

The springs 8 and 9 by acting against the two members of the hinge 4 serve to normally yieldably hold the section 3 of the bar in line with the section 2. When, however, the front wheel of a foot-propelled vehicle equipped with the handle strikes an obstruction, the grip portion 3 thereof is free to move downwardly to relieve the rider's wrist and the muscles therein and adjacent thereto from the shock. As soon as the obstruction is passed the springs 8 and 9 coöperate to return the section 3 of the handle-bar into line with the section 2 thereof.

Having thus described the invention, what I claim is—

1. A handle-bar having two tubular sec-

tions, a hinge to the outer sides of the members of which said sections are connected, the members of the hinge having oblong, registering slots, a bolt extending through said registering slots and its ends being located within said tubular sections, coiled springs in said tubular sections surrounding the opposite portions of said bolt, the inner ends of the springs bearing against the sections of the hinge, and means in proximity to the ends of the bolt and carried thereby to receive the thrust of the outer ends of said coiled springs.

2. A handle-bar having two tubular sections, a hinge to the outer sides of the members of which said sections are connected, the members of the hinge having oblong, registering slots, and one hinge member being apertured to receive the other, a bolt extending through said registering slots and its ends being located within said tubular sections, coiled springs in said tubular sections surrounding the opposite portions of said bolt, the inner ends of the springs bearing against the sections of the hinge, and means in proximity to the ends of the bolt and carried thereby to receive the thrust of the outer ends of said springs.

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

JAMES HARTLEY DUNSFORD.

Witnesses:

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