(No Model.)

F. E. BENTON.

CAR STRAP OR HAND HOLD.

No. 588,893. Patented Aug. 24, 1897.

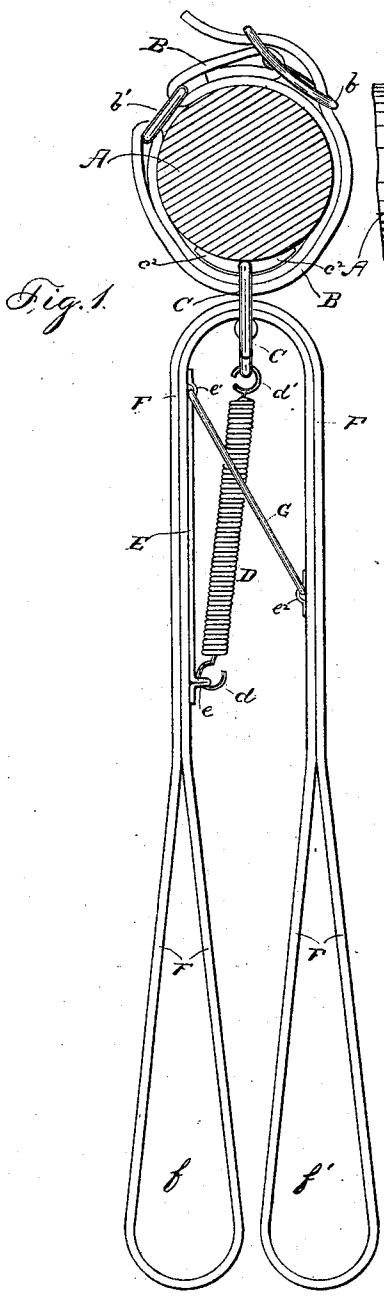


Fig. 1.

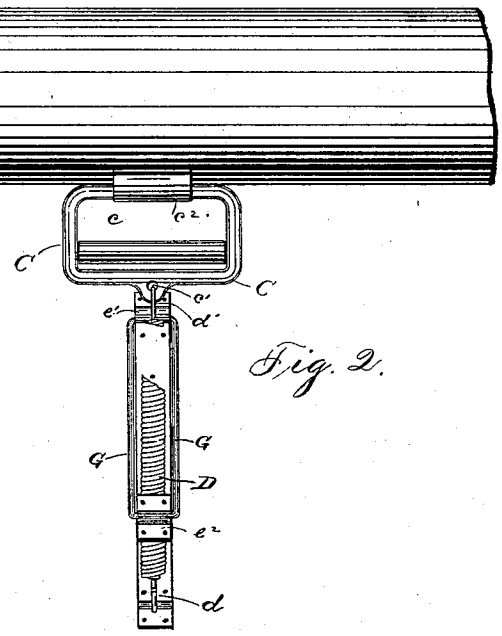


Fig. 2.

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UNITED STATES PATENT OFFICE.

FRANCIS E. BENTON, OF STOUGHTON, MASSACHUSETTS.

CAR STRAP OR HANDHOLD.

SPECIFICATION forming part of Letters Patent No. 588,893, dated August 24, 1897.

Application filed May 28, 1897. Serial No. 638,554. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS E. BENTON, a citizen of the United States, residing at Stoughton, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Car Straps or Handholds; 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The invention relates to the straps or handholds used in passenger-cars, the same having been made heretofore to suit persons of an average bodily altitude, while tall or short persons find them inconvenient for their use.

The special object of my invention is to remedy this defect in car-straps and adapt them for convenient use by persons of any bodily altitude.

Figure 1 of the drawings is a side elevation of the holding-strap and its connections, together with the car-rod, which is shown in section; and Fig. 2, a plan view without the straps, so as to show the construction and local relation of the parts to each other.

In the drawings, A represents the usual car-rod, and B a strap which goes around it, this strap being provided with a buckle *b* and loop *b'*. This strap also passes through the loop *c* of a metallic frame C, which has on one end an eye *c'* and on the other a bearing c^2 for the rod A.

D is a coiled spring having a hook at each end, the hook *d* engaging the hole *e* in a raised portion of the plate E, while the hook *d'* engages the eye *c'* of the frame C.

F is a doubled leather strap whose ends are fastened together so as to leave the two hand-loops *f f'*, one at each end preferably.

The loop *f'* may be dispensed with without departing from the principle of my invention, as the single loop *f* is made adjustable for any height of person.

To the strap F is riveted the plate E, which has a bearing *e'* corresponding to the bearing e^2 on the strap. In these bearings turn the ends of a rectangular loop G, which forms the chord of an arc on the strap F, the arc forming the limitation to the movement of the strap from one side to the other. Thus it will be readily seen that the loop *f* has an adjustment corresponding to the length of this arc, while the light spring D holds the loop at its maximum altitude, but readily yields, so as to be conveniently held by persons of any height of body. Hence is seen its desirability on a passenger-car.

Having thus described all that is necessary to a full understanding of my invention, what I claim as new, and desire to protect by Letters Patent, is—

The combination with a car-rod A and strap B, of the metallic frame C having the loop *c*, eye *c'* and bearing c^2, the coil-spring D having the end hooks *d d'*, the plate E having the hole *e* and bearing *e'*, the strap F having a loop *f* and the loop G, the latter arranged to turn in bearings $e' e^2$, substantially as shown and described.

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

FRANCIS E. BENTON.

Witnesses:
PRESTON B. RUNYAN,
WM. S. BRITTAIN.