

No. 651,539.

Patented June 12, 1900.

F. W. WARREN.
DESK ARM REST.

(Application filed Nov. 1, 1896.)

(No Model.)

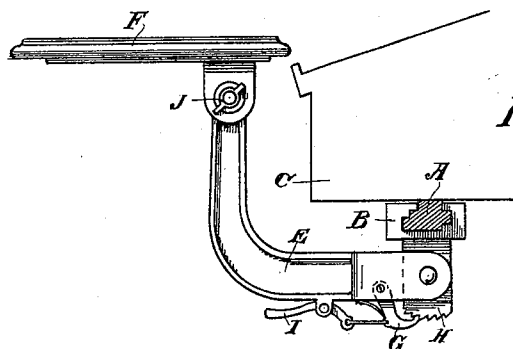


Fig. 1.

Fig. 3.

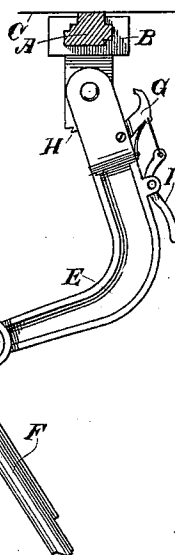
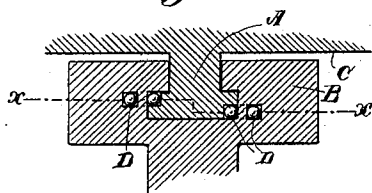


Fig. 2.

Fig. 5.

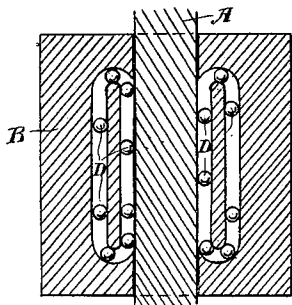
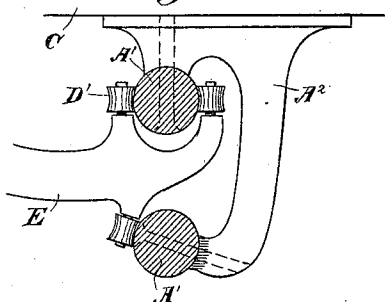


Fig. 4.



Witnesses,

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UNITED STATES PATENT OFFICE.

FRANK W. WARREN, OF SAN FRANCISCO, CALIFORNIA.

DESK ARM-REST.

SPECIFICATION forming part of Letters Patent No. 651,539, dated June 12, 1900.

Application filed November 1, 1899. Serial No. 735,480. (No model.)

To all whom it may concern:

Be it known that I, FRANK W. WARREN, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Desk Arm-Rests; and I hereby declare the following to be a full, clear, and exact description of the same.

The object of this invention is to provide an arm-rest and adjustably attach the same to desks such as are used by bookkeepers, writers, and the like.

It consists of the parts and the constructions and combinations of parts hereinafter described and claimed, and having attached to the upper end a support for the arm of the writer. The other end is adjustably connected with a slide which is mounted to travel upon guides beneath the desk, so that the rest can be moved along to any desired point where it may be needed.

Referring to the accompanying drawings, Figure 1 is a view showing the apparatus in position for use. Fig. 2 shows it turned down out of the way. Fig. 3 is a view showing the construction of the guide in the slide in which it travels. Fig. 4 is a modification of the same. Fig. 5 is a horizontal section on line *xx* of Fig. 3.

The track A, upon which the slide B is movable, may be made either in the form of a channeled bar which is suitably bolted or secured beneath the edge of the desk C or it may consist of two bars, rods, or tubes, as shown at A' in Fig. 4. In the first construction the slide B is provided with channels, in which endless rows of balls D are adapted to travel, the inner lines of the ball-races being so disposed with relation to the track that the balls will travel in the channels of the track and in such a way as to receive the pressure caused by the weight of the rest and the arm of the user.

It will be manifest that various devices may be substituted for the balls, as shown in Fig. 4, in which the parallel rods A' form the track.

The slide or its equivalent frame B has spindles, upon which rollers D' are turnable, these rollers traveling in contact with the guide-bars A' in the same manner that the balls travel in contact with the slide-bar A.

In the constructions in which the tubes A' are used they are bolted to a supplemental frame A², which in turn is fixed beneath the desk. This construction may be employed where it is not necessary to conceal the parts or to reduce them in size to suit the desk or other device to which they are to be fixed.

From the slide B the bent arm E extends outwardly and upwardly, and upon the upper end is fixed and supported the board or plate F, which serves as an arm-rest. These parts may be made rigid and fixed to suit the angle of the particular desk to which they are to be applied; but as the thickness of the book in which writing is to be done may vary it is desirable to make the device adjustable, so that the arm-rest may be brought to the plane of the desk or raised above it sufficiently to bring it on a level with the thicker book or ledger in which the writing is being done. For this purpose I have shown the bracket E as pivoted to the slide B, and a pawl G is so arranged as to engage with teeth H in the lower part of the slide, so that by raising the pawl the bracket-arm may be tilted to any desired position, and when the pawl is released, being acted upon by a suitable spring, it will engage the teeth and hold the bracket in position.

Various devices may be employed to operate the pawl. In the present case I have shown a lever-arm I extending along the bracket and fulcrumed thereto, having its end connected with the pawl, so that by pressure upon the lever-arm the pawl may be disengaged and the bracket adjusted as desired, after which by releasing the lever the pawl will engage the toothed segment and hold the parts in place. The desk portion F is also preferably pivoted upon the upper end of the bracket-arm and locked in any desired adjustment thereon by means of a clamping-screw J or equivalent locking device, which will allow the table or arm-rest to be tilted and set at any desired angle or position with relation to the desk or arm with which it is connected.

The roller or ball bearings upon which the slide travels on its guide are so disposed that pressure upon the arm-rest will act to force these bearings against opposite sides of the

guide and to always bring the weight and pressure against the bearings. By reason of these guides the rest moves easily backward and forward and can be moved from one end of the desk to the other, wherever needed, with little or no exertion.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. An arm-rest attachment for desks and the like consisting of a table, a supporting-bracket, a slide upon which the lower end of the bracket is pivotally connected whereby said bracket is adjustable in vertical planes, means for holding the bracket in its adjusted position, and a guide fixed with relation to the desk and essentially parallel therewith upon which the slide is movable.

2. An arm-rest attachment for desks and the like consisting of a table, a vertically-adjustable arm or bracket to the upper end of which the table is adjustably fixed, a slide to which the lower end of the arm is adjustably fixed, a guide upon which the slide is movable and antifrictional bearings forming contact-surfaces between the slide and the guide.

3. An arm-rest attachment for desks and the like consisting of a table, an arm or bracket, a jointed attachment between the table and the upper end of the bracket whereby the angle of the table may be adjusted, a slide and a guide or guides fixed with relation to the desk, and upon which the slide is adapted to travel, a jointed connection between the

bracket-arm and the slide whereby the arm may be moved to raise or lower the table.

4. An arm-rest attachment for desks and the like consisting of a table, an arm or bracket, a jointed connection between the table and the upper end of the arm, a slide, a guide fixed with relation to the desk and interposed antifrictional bearings between the slide and guide and upon which the slide is movable, a jointed connection between the bracket-arm and the slide, and a pawl-and-ratchet mechanism whereby the arm and rest may be adjusted to the desk or disengaged and turned out of the way.

5. An arm-rest attachment for desks and the like consisting of a table, an arm or bracket to the upper end of which the table is adjustably connected, a guide fixed with relation to the desk, a slide movable thereon with interposed antifrictional bearings, a joint connection between the bracket-arm and the slide, a toothed rack and an engaging pawl whereby the arm is held at any point of adjustment and a fulcrumed lever by which the pawl is disengaged from the rack to allow the rest to be adjusted with relation to the desk.

In witness whereof I have hereunto set my hand.

FRANK W. WARREN.

Witnesses:

S. H. NOURSE,
JESSIE C. BRODIE.