This invention is directed to an improvement in timepieces and more particularly to that class of timepieces known as chronometer watches.

Chronometer watches are the term applied to that type of timepiece which is unmounted on a gimbal yet is too large to be considered a pocket watch. They are used in the navigation of small boats where extreme accuracy is desired without the size of a true chronometer. They are generally boxed on cushions under glass and are only removed once a day to wind.

The improvement which constitutes this invention is directed to the operation of winding, that is to safeguard the delicate movement during the one time it is necessary to handle the chronometer watch.

The object of the invention is to provide means to protect the movement during the winding operation.

A further object is to provide means associated with the watch case that will protect the movement of the watch during the winding operation.

A further object is to provide a guard for the crown and winding stem.

A further object is to provide a guard piece, secured to the case and preventing rotation of the chronometer watch while winding.

A still further object is to construct a guard which will enclose the crown sufficiently to prevent said crown from being gripped by the fingers during the winding operation.

The invention is illustrated in the accompanying sheet of drawing, in which:

Fig. 1 is a plan view of the chronometer watch.

Fig. 2 is a broken top view.

Fig. 3 is a cross section on line 3—3 of Fig. 2.

The invention is shown applied to a chronometer watch 1 having the usual dial 2 with hour and minute hands 3 and 4. A second hand 5 as well as a winding indicator hand 6, is also set forth on the dial.

The watch has the movement enclosed in a case 7 formed with an opening 8 to receive the winding stem 9. Attached to said case by welding, brazing or the like is a crown guard 10 formed with a central opening 11 adapted to be aligned with opening 8 and to receive the winding stem 9. The central opening 11 of the guard 10 is enlarged at 12 to receive the crown 13 which is threaded to the winding stem at 14.

The crown 13 projects beyond the guard on each side at points 15 and 16 to provide means of contacting the crown for winding purposes. This projection of the crown beyond the guard is only sufficient to allow the fingers to contact the knurled edge 17 and not enough to permit the crown to be gripped by the fingers.

The width of the guard at its base is slightly larger than the width of the case, the guard being recessed as at 18 to allow insertion of the crystal. The guard can, of course, be used to support the chronometer watch from a hangar or may be fitted with the usual bow common to pocket watches.

In all fine watches and, of course, chronometer watches the balance wheel staff is journaled in olive jewels and abuts against end stones. This type of construction by even the finest adjustment allows a play between the ends of the balance staff and the end stones when the watch or chronometer is shaken or when turned from one side to the other. Constant repetition of this turning causes either one of two things. It either upsets the pivot points of the balance staff or it chips or cracks the end stones or possibly both.

In the practice of winding the larger watches, many people grasp the crown and twist the watch case about the winding stem in a series of jerks or by rotation of both hands in opposite directions produce a condition which continually reverses the position of the watch. Such a movement gives rise to the conditions above expressed and causes these delicate instruments to alter in their timekeeping. The guard, which is the subject of this invention, prevents this movement of the watch and only permits the crown to be rotated by a movement of the fingers across the knurled edge, the watch being necessarily held motionless in the other hand. This does not produce any movement of the balance staff in a longitudinal direction, thereby reducing the possibility of damage to said staff or its end stones and consequential longer and more accurate life of the movement.

What is claimed is:

A chronometer watch comprising a case formed with a stem opening, a crown guard formed with an accurately bore accurately fitting said case, said guard being convex in form and having sloping top edges and further formed with a central bore enlarged in its upper part to provide a crown receiving chamber, a winding stem projecting through said base opening and into the enlarged bore of said guard, a crown formed with cylindrical sides sharply cut inward at the top and bottom, housed in said chamber, the inward cut top portions of said crown forming prolongations of the sloping top edges of the said crown guard, said sharply inward cut portions and the top of said crown being smooth, and said cylindrical portion of said crown being formed with a knurled surface, whereby only such portion of the knurled surface of said crown projecting beyond said crown receiving chamber is available for winding said watch.