

HAMILTON SHIP CHRONOMETER

DESCRIPTION

SECTION II

DESCRIPTION

The Hamilton make of Ship Chronometer has an 85-size, 14-jewel movement, known as manufacturer's model 21, part number 42000. It is characterized by essential interchangeability of parts and its design is such as to obviate the need for arduous and time-consuming application of personal skills in adjustment of the individual movement.

With dial and hands, the movement is fitted into its brass case and set in gimbals to maintain horizontal position in the mounting box. Fig. 1, the frontispiece, shows the instrument in its mounting box.

While the appearance of this chronometer is conventional, a detailed examination of the instrument itself reveals many innovations not previously used. A description of these appears in subsequent paragraphs.

NOTE

Carrying Case No. 42202, as formerly used, consisted of a brass-fitted mahogany box designed to hold the mounting box with a snug fit. See indication of this arrangement in Section XI, Fig. 106. It was padded inside, provided with a hinged mahogany cover, and equipped with leather carrying strap. A safety latch fastened the cover when closed. Case No. 42130 was identical to No. 42202 except that it had a hook and eye fastener. Few of these carrying cases are still in use, though some will continue to be issued for special purposes. A part of their utility is now served by the newly-developed shipping container, illustrated in Section X, Fig. 103.

when opened for winding or setting. Latches fasten the upper and lower covers.

Mounting Box No. 42129 is identical to the box described except that it is equipped with lock and key for the lower lid. Both styles of box have provision for mounting a winding key.

CAUTION

If the instrument is not in its mounting box, the gimbal system must be locked in place with its latch before cover is closed, or the glass top will be broken.

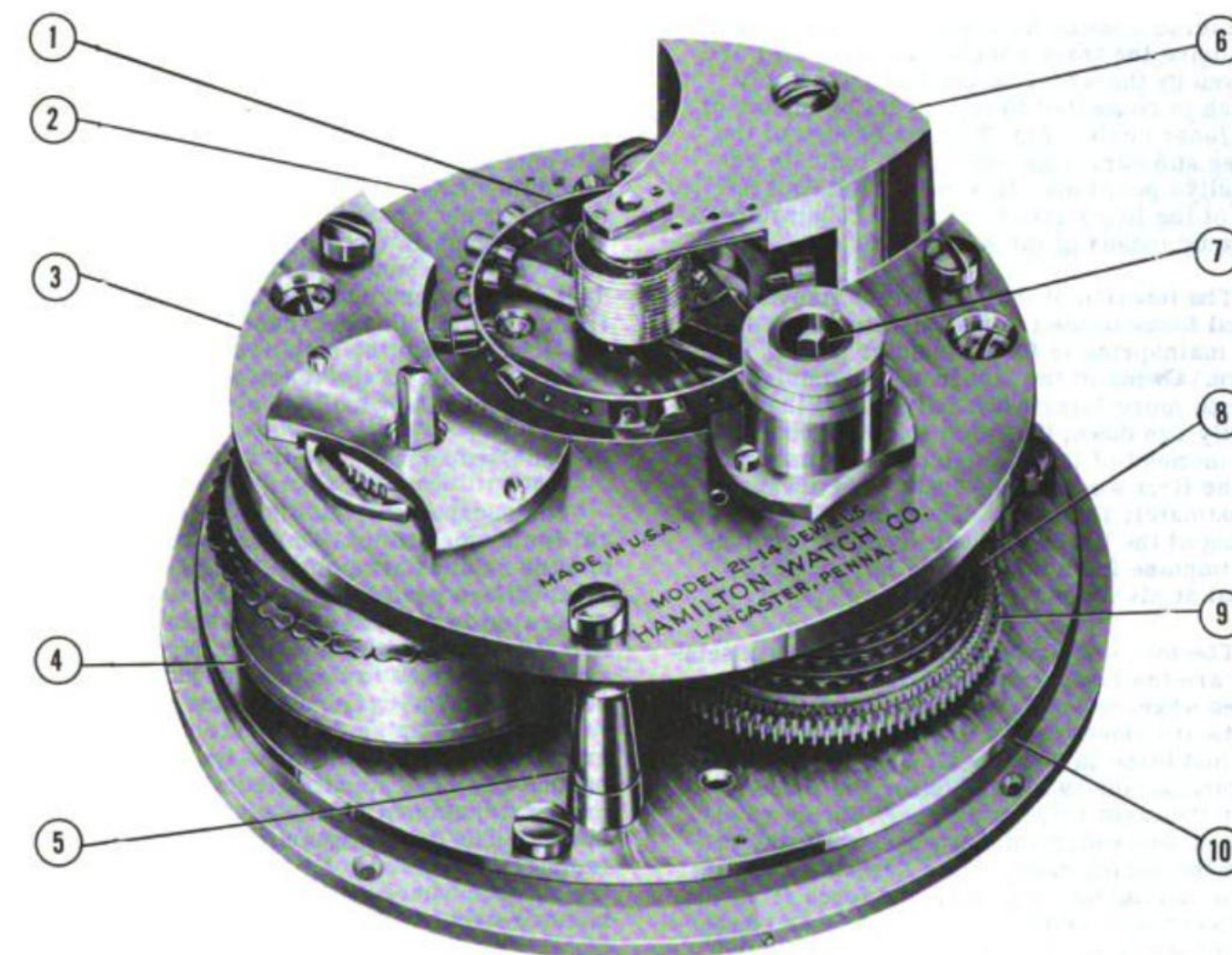
GIMBAL MOUNT

The gimbal mount, well illustrated in Fig. 1, consists of a brass ring pivoted at two points 180 degrees apart. These pivots are fastened to opposite sides of the mounting box. The brass case containing the chronometer movement is pivoted from the brass ring at two points 180 degrees apart and 90 degrees away from the two pivots holding the ring to the mounting box.

The chronometer is leveled when originally inserted in the gimbals by adjusting the position of the case brackets and gimbal support straps. Because of the gimbal construction, the mounting box may be tilted in any direction and the chronometer movement will tend to remain level. See exploded view in Section XI, Fig. 106.

CHRONOMETER CASE

The brass chronometer case consists of the bezel and brass bowl to which are mounted the case support brackets, latch keeper and shield plate. See exploded view in Section XI, Fig.



- 1 BALANCE AND HAIRSPRING ASSEMBLY
- 2 TRAIN BRIDGE
- 3 BARREL BRIDGE
- 4 BARREL
- 5 PILLAR

- 6 BALANCE COCK
- 7 FUSEE ARBOR
- 8 FUSEE
- 9 FUSEE WHEEL
- 10 PILLAR PLATE

Figure 2 — Chronometer Movement

twelve hours. A wind indicator scale marked "UP-DOWN" is located below the 12 hour mark with graduations in multiples of 8, from 8 to 48. At the place of numeral "6" is a seconds

except that the barrel bridge also holds the fusee in addition to the barrel. An additional bridge, the balance lower bridge (see exploded view in Section XI, Fig. 110) supports the