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3,350,874

MOVEMENT REGULATING ASSEMBLY FOR TIMEPIECES

Filed Nov. 10, 1964

Fig. 1

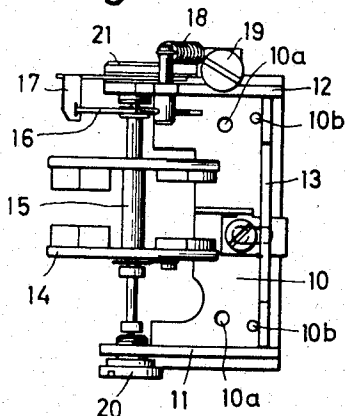


Fig. 2

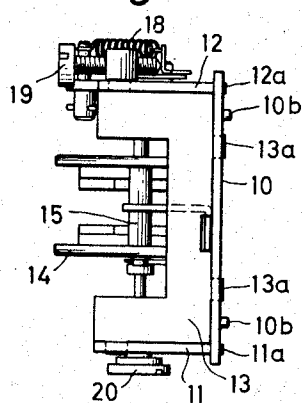


Fig. 3

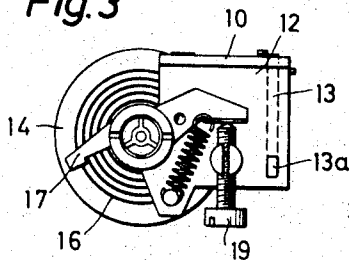


Fig. 4

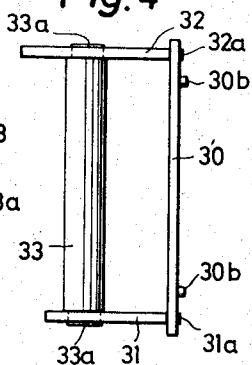


Fig. 5

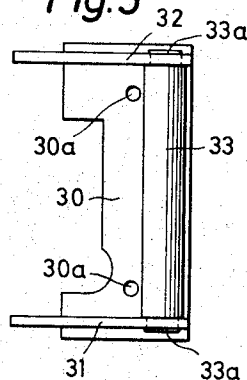


Fig. 6

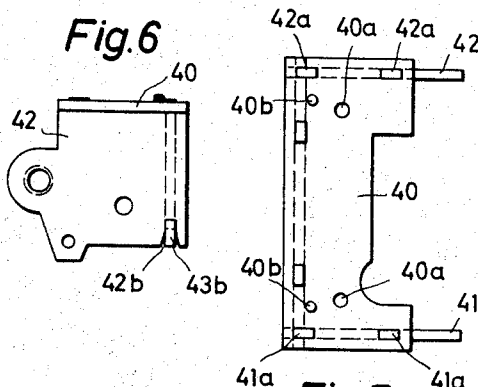


Fig. 7

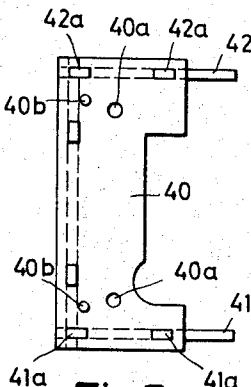
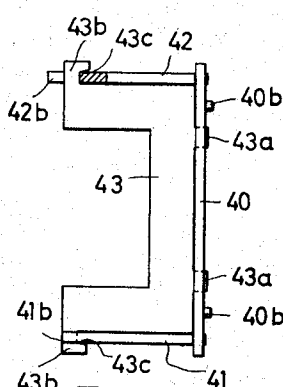


Fig. 8



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MOVEMENT REGULATING ASSEMBLY FOR TIMEPIECES

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3 Claims. (Cl. 58—52)

The invention relates to a movement regulating assembly for a timepiece, preferably an electric clock with vertically mounted balance staff.

The object of the invention is to produce an assembly of the type mentioned above which is simple to manufacture and enables the movement regulator to be exchanged without difficulty. The invention is characterized in that the balance is mounted in an independent bearing frame composed of plates interengaging in form-locking fashion. The bearing frame is preferably in the form of an angle frame consisting of flat plates provided with interengaging rivet-shaped or hook-shaped projections and holes or incisions.

Such an assembly can be produced far more simply and cheaply than a device produced as a one-piece stamped or bent part.

Several embodiments of the invention are hereinafter described by way of example with reference to the accompanying drawing, in which

FIG. 1 shows as first embodiment a movement regulating assembly viewed in the direction towards the front plate of the timepiece movement;

FIG. 2 is a side elevation of the embodiment illustrated in FIG. 1;

FIG. 3 is a top plan view of the embodiment illustrated in FIGS. 1 and 2;

FIG. 4 is a side elevation of a second embodiment of the invention in which the movement regulator is omitted;

FIG. 5 shows the embodiment illustrated in FIG. 4 viewed in the direction of the front plate of the timepiece movement;

FIG. 6 is a plan view of a third embodiment of the invention without showing the movement regulator;

FIG. 7 is a view of the embodiment illustrated in FIG. 6 seen from the fixing plate, and

FIG. 8 is a side elevation of the embodiment illustrated in FIGS. 6 and 7.

In FIGS. 1 to 3 the flat plates which carry the bearings 20 and 21 for the staff 15 of the balance 14 are designated by 11. 16 is the spiral spring of the balance, 17 the regulator, 19 a set screw for the regulator 17 and 18 a restoring spring.

The plates 11 and 12 carrying the balance bearings 20 and 21 are interconnected by a plate 10. The connection is effected by riveting at 11a and 12a. The plate 10 serves for fixing the whole assembly in the timepiece

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movement and for this purpose is provided with holes 10a and projections 10b.

For supporting the plates 11 and 12 carrying the balance bearings 20 and 21 a side plate 13 is provided which is connected with the fixing plate 10 by the rivet joints 13a.

In the embodiment illustrated in FIGS. 4 and 5 the plates carrying the balance bearings are designated by 31 and 32 and connected with the fixing plate 30 with the aid of rivet joints 32a and 31a. The fixing plate 30 is provided with holes 30a and projections 30b. In this case a pillar 33 is provided for supporting the plates 31 and 32 carrying the balance bearings and is connected with these plates by rivet joints 33a.

In the embodiment illustrated in FIGS. 6 to 8 the plates carrying the balance bearings are designated by 41 and 42. These plates 41 and 42 are connected by the fixing plate 40 with the aid of rivet joints 41a and 42a.

Here the side plate 43 connected with the fixing plate 40 by rivet joints 43a is provided for supporting the plates 41 and 42. For connecting the plate 43 with the plates 41 and 42 the plate 43 has hook-shaped projections 43b which engage in corresponding slots 41b and 42b in the plates 41 and 42. These hook-shaped projections 43b are provided with wedge-shaped draw-in surfaces 43c. The slots 41b and 42b have corresponding wedge-shaped side surfaces. By these wedge-shaped surfaces a tension is produced between the plates 41, 42 and 43 so that a firm hold is ensured between the plates in a simple manner.

For fixing the plate 40 in the timepiece movement holes 40a and projections 40b are also provided here.

What is claimed is:

1. Balance structure particularly for electric clock works comprising an independent bearing frame, and a balance shaft mounted vertically in the bearing frame, said bearing frame with its balance shaft being independently separable as a unit from the clock works and adapted to be secured to the clockworks.

2. Balance structure according to claim 1, in which the bearing frame is composed of a plurality of interconnecting plates.

3. Assembly according to claim 1, wherein the bearing frame is composed of flat plates assembled in the form of an angle frame and provided with interengaging projections and holes.

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