Dec. 17, 1940. L. GUILD 2,225,474

WRIST-WATCH CASE

Filed July 30, 1938 2 Sheets-Sheet 1

Fig. 1.

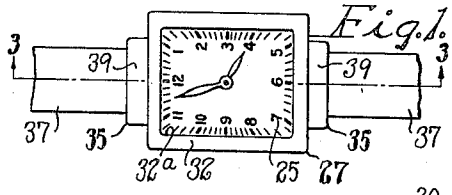


Fig. 2.

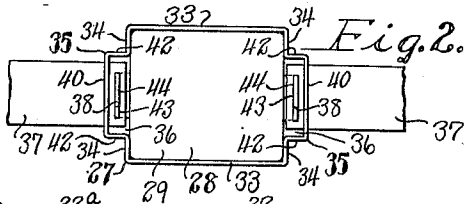


Fig. 3.

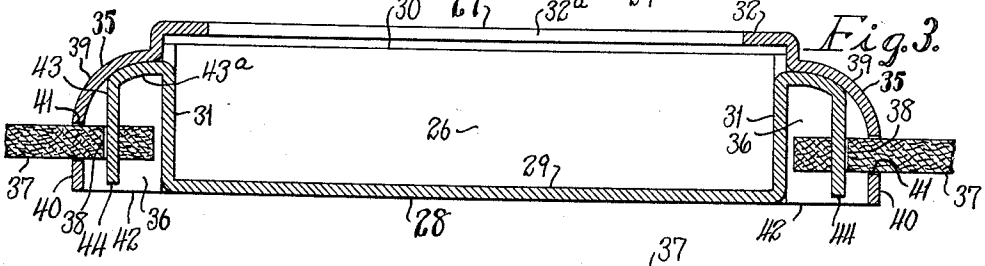


Fig. 4.

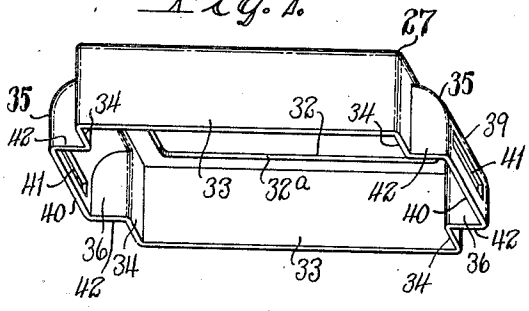


Fig. 6.

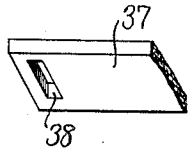


Fig. 7.

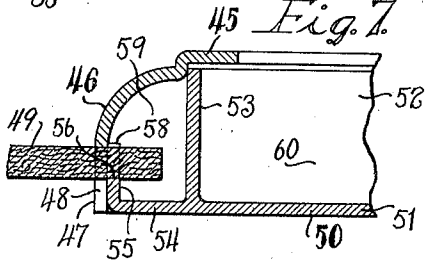


Fig. 5.

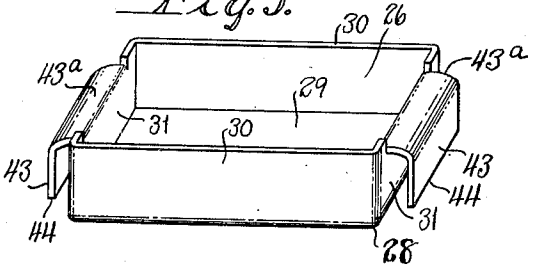


Fig. 10.

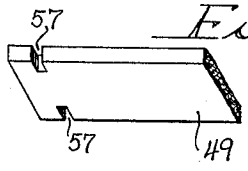


Fig. 8.

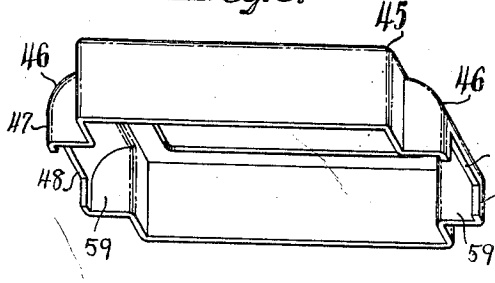
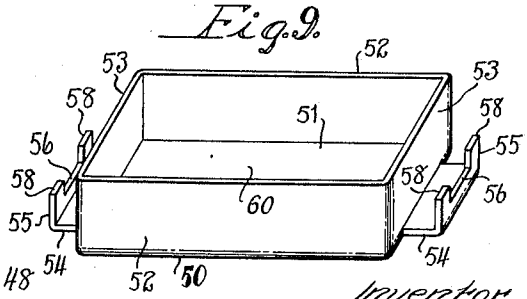


Fig. 9.



Inventor
Lurelle Guild
by Seymour Earle Nichols
Attorneys

Dec. 17, 1940. L. GUILD 2,225,474

WRIST-WATCH CASE

Filed July 30, 1938 2 Sheets-Sheet 2

Fig. 13.

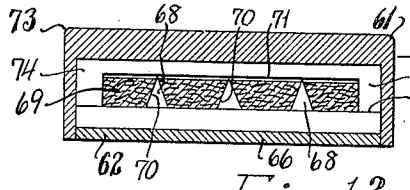


Fig. 11.

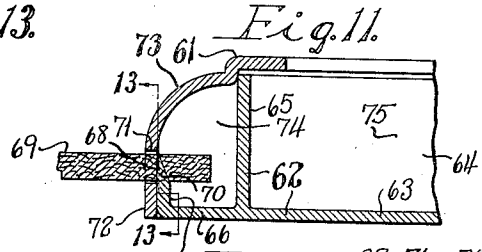


Fig. 12.

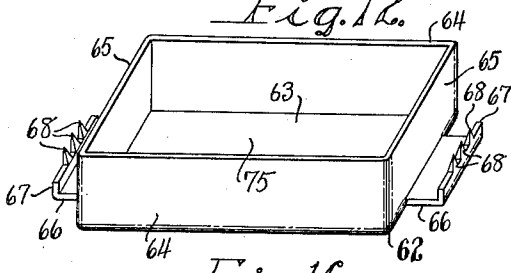


Fig. 14.

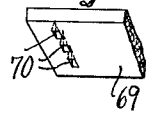


Fig. 15.

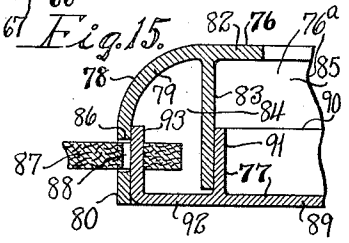


Fig. 16.

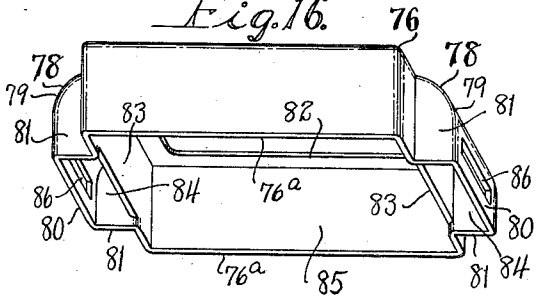


Fig. 17.

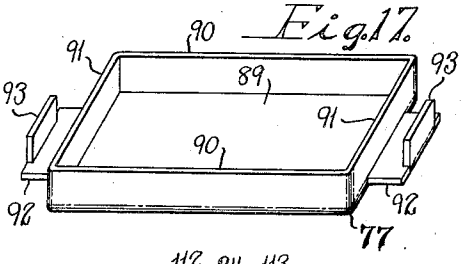


Fig. 20.

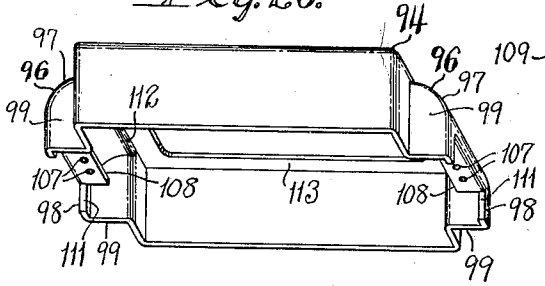


Fig. 18.

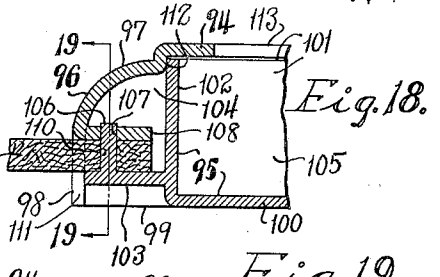


Fig. 19.

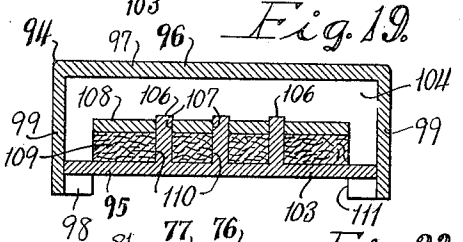


Fig. 21.

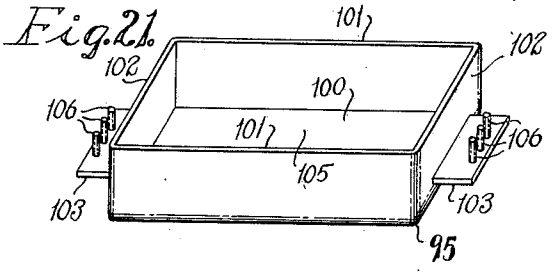


Fig. 22.

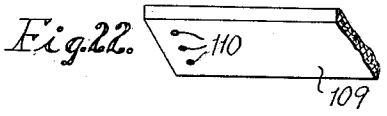
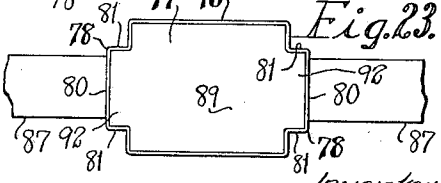


Fig. 23.



Inventor
By Lurelle Guild
Seymour Earle Nichols
Attorneys

Patented Dec. 17, 1940 2,225,474

UNITED STATES PATENT OFFICE

2,225,474

WRIST-WATCH CASE

Lurelle Guild, Noroton, Conn., assignor to The Waterbury Clock Company, Waterbury, Conn., a corporation of Connecticut

Application July 30, 1938, Serial No. 222,121

6 Claims. (Cl. 224—4)

The present invention relates to that type of wrist-watch cases in which the ends of a wrist-strap are anchored within terminal-hoods or -compartments forming portions of or included within interfitting casing-parts which carry the wrist-watch movement.

One object of the present invention is to provide an improved construction for wrist-watch cases of this character wherein all parts or members associated with or related to the attachment of the ends of a wrist-strap to and their detachment from the wrist-watch case, are permanently united to the wrist-watch case.

Another object of the invention is to provide an improved construction for wrist-watch cases having interfitting casing-parts wherein the strap-end anchoring-members are permanently connected to or integrally formed with the wrist-watch casing-parts in a predetermined arrangement which will cause the ends of a wrist-strap to be anchored to the wrist-watch case by the act of assembling the said casing-parts.

A further object of the invention is to provide an improved construction for wrist-watch cases having interfitting casing-members wherein co-operatively-arranged strap-anchoring and positioning members forming integral portions of the wall-structures of the respective casing-parts may be employed to facilitate the positioning and anchoring of the ends of a wrist-strap within the terminal-hoods or -compartments of the wrist-watch case.

With the above and other objects in view, as will appear to those skilled in the art from the present disclosure, this invention includes all features in the said disclosure which are novel over the prior art.

For the purposes of illustration, the invention is illustrated in the drawings in adaptations to wrist-watch cases of several forms.

In the accompanying drawings, in which certain modes of carrying out the present invention are shown for illustrative purposes:

Fig. 1 is a face view of one form of a wrist-watch case embodying the present invention with a suitable watch-movement encased therein;

Fig. 2 is a rear plan view of the same;

Fig. 3 is an enlarged longitudinal sectional view taken on the line 3—3 of Fig. 1, but omitting the watch-movement;

Fig. 4 is a perspective view from below and on a reduced scale compared to Fig. 3, of the outer casing-member shown in Figs. 1, 2 and 3;

Fig. 5 is a perspective view from above and on approximately the same scale as Fig. 4, of the inner casing-member shown in Figs. 2 and 3;

Fig. 6 is a perspective view of one of the strap-ends to be inserted into a terminal-compartment of the watch-case;

Fig. 7 is a broken or fragmentary view in medial vertical section of one end of another embodiment of the present invention with an attached strap-end;

Fig. 8 is a perspective view from below of the outer casing-member shown in Fig. 7;

Fig. 9 is a perspective view from above of the inner casing-member shown in Fig. 7;

Fig. 10 is a perspective view of the strap-end shown in Fig. 7;

Fig. 11 is a broken or fragmentary view in medial vertical section of one end of another embodiment of the invention;

Fig. 12 is a perspective view from above of the inner casing-member shown in Fig. 11;

Fig. 13 is a transverse section taken on the line 13—13 of Fig. 11;

Fig. 14 is a perspective view of one of the strap-ends employed with the embodiment shown in Figs. 11 to 13 inclusive;

Fig. 15 is a broken view in longitudinal vertical section of one end of another embodiment of the invention;

Fig. 16 is a perspective view from below of the outer casing-member shown in Fig. 15;

Fig. 17 is a perspective view from above of the inner casing-member shown in Fig. 15;

Fig. 18 is a fragmentary view in longitudinal vertical section of one end of another embodiment of the invention;

Fig. 19 is a transverse section taken on the line 19—19 of Fig. 18;

Fig. 20 is a perspective view from below of the outer casing-member shown in Figs. 18 and 19;

Fig. 21 is a perspective view from above of the inner casing-member shown in Figs. 18 and 19;

Fig. 22 is a perspective view of the strap-end shown in Figs. 18 and 19; and

Fig. 23 is a back plan view of the watch-casing shown in the embodiment illustrated in Figs. 15 to 17 inclusive.

In my co-pending application, Serial No. 222,122, filed on even date herewith, I have shown, described and claimed a wrist-watch case having portions thereof constructed and arranged to form terminal-hoods within which the ends of a wrist-strap are anchored by means of strap-end anchoring-members which are permanently connected to or integrally formed with the said wrist-watch case or terminal-hoods thereof. Ac-

cording to the above-identified application, in some instances, the strap-ends are positioned and anchored in the terminal-hoods of one of the case-forming parts prior to the assembly of the said case-forming parts; in other instances, the strap-ends are introduced into and anchored within the terminal-compartments either before or after the assembly of the case-forming parts; and in all instances, the actual positioning and anchoring of the strap-ends, is accomplished independently of the assembling of the said case-forming parts.

In the present application is shown, described and claimed, a wrist-watch case comprising: inner and outer case-forming parts; one of which is provided with strap-end anchoring-members which are permanently connected to or integrally formed with one of the said case-forming parts; and the other of which case-forming parts is provided with permanently-connected or integrally-formed retention-members of wall-portions which are constructed and arranged to effect the positioning and anchoring of the ends of a wrist-strap by means of or during the progress of the assembling of the said case-forming parts.

In the above-identified co-pending application as well as in the present application, the construction and relative arrangement of the parts in the completely-assembled wrist-watch case, operate to securely retain or lock the strap-ends in their anchored relation to the strap-end anchoring-members.

In each of the several embodiments of the present invention herein shown, described and claimed, the wrist-watch case comprises two oppositely-extending end-portions with respect to a medial transverse plane and in the said end-portions, the construction, relative arrangement and functioning of the parts is substantially similar. In consequence, a description of one end of the wrist-watch case in each embodiment of the invention, will in the main serve for both.

Referring to the embodiment of the invention shown in Figs. 1 to 6 inclusive, a watch-movement **25** is mounted in a watch-receiving compartment **26** (Fig. 3) formed within and intermediately of the ends of a wrist-watch case comprising an outer or front casing-part designated generally by the reference character **27** and an inner or back casing-part designated generally by the reference character **28**.

As shown particularly well in Fig. 5, the inner casing-part comprises a bottom-wall **29** which constitutes the bottom-wall of the intermediate watch-receiving compartment **26**; laterally-spaced side-walls **30**; and end-walls **31—31** which separate the intermediate compartment **26** from oppositely-arranged terminal-compartments to be presently referred to.

The outer casing-part **27**, as is shown particularly well in Fig. 4, comprises a top-wall portion **32** having a sight-opening **32***a* and forming the top-wall of the intermediate watch-receiving compartment **26**; laterally-spaced side-walls **33—33**; a pair of laterally-spaced end-wall panels **34—34** at each end, with the space between the individuals of each pair of end-wall panels closed by the adjacent one of the two oppositely-arranged terminal-hoods designated generally by the reference characters **35—35**, and of less height, width and depth than the watch-receiving compartment **26**.

Each of the end-walls **31—31** of the inner casing-part **28**, forms with the adjacent one of the oppositely-arranged terminal-hoods **35—35**, a terminal-compartment **36** for accommodating one anchored end of a wrist-strap. Each end of the said strap will for convenience of description be termed a "strap-end" and is designated by the reference character **37**. Each strap-end **37** is provided with a transverse slot **38** by means of which it may be anchored in the manner hereinafter pointed out. Each terminal-hood **35** comprises an arcuate top-wall portion **39**; a vertical terminal-end-wall portion **40** provided with a strap-receiving slot **41**; and laterally-spaced side-wall panels **42—42** which join the adjacent end-wall panels **34—34** of the casing-part **27**.

Permanently connected to each of the end-walls **31—31** of the inner casing-part **28**, is a strap-end anchoring-tongue **43** which, in the form shown, is preferably formed as an integral extension of the upper portion of the adjacent end-wall **31** and comprises a curved upper portion **43***a* substantially conforming to the inner surface of the arcuate top-wall portion **39** of the adjacent terminal-hood **35**, and a depending portion **44** which latter, in the assembled positions of the outer and inner casing-parts, extends through the transverse slot **38** in the adjacent one of the strap-ends **37—37**.

According to this embodiment of the invention, a strap-end **37** may be passed through a given one of the terminal-slots **41—41** in the respective end-walls of the terminal-hoods **35—35** and anchored to the depending portion **44** of the adjacent anchoring-tongue **43** either before or after the inner casing-part **28** has been placed within the outer casing-part **27**. It will be understood that the casing-members **27** and **28** may be retained in assembled position each with respect to the other by close frictional contacts between interfitting portions of the respective casing-parts.

In the embodied form of the invention shown in Figs. 7 to 10 inclusive, the outer casing-part which is generally designated by the reference character **45**, is generally similar in construction to the outer casing-part **27** described above except for the modified form of the strap-end receiving-opening in the terminal-wall of the hood-forming portion thereof to be presently described.

At each of its opposite ends, the said outer casing-part **45** comprises a terminal-hood generally designated by the reference character **46** and provided with a vertical wall-portion **47** having a clearance-notch **48** formed therein of sufficient width to receive the strap-end **49** of a wrist-strap.

Fitting within the outer casing-part **45** is an inner casing-part designated generally by the reference character **50** and comprising: a bottom-wall portion **51**; laterally-spaced side-wall portions **52—52**; end-wall portions **53—53**; and, at each end thereof, a bottom-plate extension **54** provided with an outer end-portion **55** at right angles thereto. The outer end-portion **55** of each extension **54** is provided with a central notch **56** of less width than the strap-end **49**. The said strap-end **49** being provided with a pair of oppositely-arranged coupling-notches **57—57** in its lateral edges and respectively receiving laterally-spaced coupling-lugs **58—58** formed in the outer-end portion **55** of the extension **54** by the notch **56**.

According to this embodiment of the invention (Figs. 7 to 10 inclusive), each of the extensions **54—54** of the inner casing-part **50** forms a closed bottom-wall for the adjacent terminal-compartment **59**, the construction and arrangement of the said outer end-portion **55** being such that

when the casing-parts 45 and 50 are assembled, the said outer end-portion 55 is caused to slidably engage the inner surface of the vertical end-wall 47 of the adjacent terminal-hood 46. Before assembling the casing-parts 45 and 50, a given strap-end 49 may be in a given clearance-notch 48 formed in the end-wall 47 of terminal-hood 46 with the coupling-notches 57—57 of the strap-end just within the inner surface of the end-wall 47, or said strap-end may be first anchored to the laterally-spaced lugs 58—58 on the extension 54 of the inner casing-part 50 in such a way that when the inner casing-part 50 is placed within the outer casing-part 45, the strap-end 49 is anchored to the outer end-portion 55 of extension 54 and securely interlocked between the said outer end-portion 55 and the end-wall 47 of the terminal-hood 46.

It will be understood from the foregoing that the terminal-compartment 59 at each end of the wrist-watch case, is separated from an intermediate watch-receiving compartment 60 by an end-wall 53 of the inner casing-part 50.

According to the embodiment of the invention shown in Figs. 11 to 14 inclusive, an outer casing-part, which is similar in construction to the outer casing-part 27 shown in Figs. 1, 3 and 4, is designated generally by the reference character 61. Interfitted with the said outer casing-part 61 is an inner casing-part designated generally by the refernce character 62.

In the form shown in the figures just above referred to, the inner casing-part 62 comprises: a bottom-wall 63; side-walls 64—64; end-walls 65—65; and bottom-wall extensions 66—66 having outer end-portions 67—67 bent upwardly at right angles thereto and provided respectively with sets of upwardly-projecting pyramidal anchoring-points or -teeth 68—68. For less expensive forms of wrist-watch cases, the pyramidal points or teeth 68 may be utilized to penetrate the ends of wrist-straps formed of leather or other suitable material for this purpose. Preferably, however, before the strap-end 69 is attached to the wrist-watch case, a series of anchoring-sockets or -recesses 70, shaped and arranged to interfit with the pyramidal anchoring-points 68, are formed therein. When a given strap-end 69 is positioned within either one of two strap-receiving slots 71—71 respectively formed in the opposite vertical end-wall portions 72—72 of a pair of oppositely-projecting terminal-hoods designated generally by the reference characters 73—73, the subsequent introduction thereinto of the anchoring-points 68 will effect a lateral as well as a longitudinal registration of the strap-ends within a terminal-compartment 74, one of which latter is formed in each of the terminal-hoods 73—73. The said terminal-compartments 74—74 are respectively separated from an intermediate watch-receiving compartment 75 by one of the end-walls 65 of the inner casing-part.

It will be understood from the foregoing that according to the embodiment of the invention shown in Figs. 11 to 14 inclusive, before the casing-parts 61 and 62 are assembled, a given strap-end 69 is approximately positioned in the strap-receiving slot 71 with the contracted upper ends of the anchoring-sockets 70 therein substantially in registry with the inner surface of the terminal-hood 73. The inner casing-part 62 is then moved upwardly into position within the outer casing-part 61 to enter the anchoring-points 68 into the anchoring-sockets 70 and thus lock the given strap-end 69 in place.

It will be understood that after the outer and inner casing-parts 61 and 62 have been assembled as described, the said casing-parts may be retained in assembled relation by their close frictional engagement.

According to the embodied form of the invention shown in Figs. 15, 16 and 17, the wrist-watch case comprises an outer casing-part designated generally by the reference character 76 and inner casing-part designated generally by the reference character 77.

The outer casing-part 76 is provided at each end with a terminal-hood designated generally by the reference character 78. Each terminal-hood comprises an arcuate wall-portion 79 which merges at the top with the top-wall 82 of the outer casing-part 76; a vertical end-wall portion 80; and laterally-spaced side-wall panels 81—81. Adjacent each end of the outer casing-part 76 is a transverse partition-wall 83 which intervenes between the adjacent one of two terminal-compartments 84—84 and an intermediate watch-receiving compartment 85. The vertical end-wall portion 80 of each of the terminal-hoods 78 is provided with a transverse clearance-slot 86 to receive one of two corresponding strap-ends 87—87 of a wrist-strap, each of the said strap-ends being provided with a transverse anchoring-slot 88 whereby it may be anchored within a given one of the terminal-compartments 84—84 in the manner to be explained.

The inner casing-part 77 comprises a bottom-wall 89 which constitutes the bottom-portion of the watch-receiving compartment 85; side-walls 90—90 which slidably engage the inner surfaces of the side-walls 76a—76a of the outer casing-part 76; transverse end-walls 91—91 which slidably engage the inner surfaces of the partition-walls 83—83 of the outer casing-part 76; and bottom-wall extensions 92—92 which respectively close the terminal-compartments 84—84 at the bottom and are provided with outer end-portions bent upwardly at right angles thereto to provide strap-end anchoring-members 93—93.

Prior to assembling the inner and outer casing-parts 77 and 76, each strap-end 87 is located within one of the terminal-compartments 84—84. As the inner casing-part 77 is moved into the outer casing-part 76, the anchoring-members 93—93 respectively slidably engage the inner surfaces of the end-walls 80—80 of terminal-hood 78 as the said anchoring-members 93—93 move respectively into the transverse coupling-slots 88—88 to anchor the strap-ends 87—87.

As shown in Fig. 23, the rear view of the assembled wrist-watch case includes the flat surface of the bottom-wall of inner casing-part 77 which is cruciform in outline and bordered by the marginal edges of the outer casing-part 76 and with the strap-ends 87—87 extending outwardly therefrom in opposite directions.

The back plan view of each of the embodiments shown in Figs. 7 and 11 is substantially the same as that shown in Fig. 23 which represents the back plan view of the embodiment shown in Figs. 15 to 17 inclusive.

According to the embodied form of the invention shown in Figs. 18 to 22 inclusive, the wrist-watch case comprises an outer casing-part designated generally by the reference character 94 and an inner casing-part designated generally by the reference character 95, the said outer casing-part 94 being provided with oppositely-

arranged terminal-hoods designated generally by the reference characters 96—96.

Each terminal-hood 96 comprises an upper arcuate wall-portion 97; an outer end-wall portion 98; and laterally-spaced side-wall panels 99—99.

The inner casing-member 95 comprises a bottom-wall 100; side-walls 101—101; end-walls 102—102; and oppositely-projecting extensions 103—103 which are vertically offset from the bottom-wall 100.

A terminal-compartment 104 in each of the terminal hoods 96—96 is separated from an intermediate watch-receiving compartment 105 by one of the said end-walls 102—102 of the inner casing-part 95. Projecting upwardly from each of the extensions 103—103 is a transverse series of anchoring-pins 106 which, in the assembled positions of the outer and inner casing-parts 94 and 95, project into and interlock with a series of correspondingly-arranged anchoring-sockets 107. The said anchoring-sockets 107 are formed in a supporting- or locking-plate 108, one of which projects inwardly from the inner surface of each of the terminal-hoods 96—96. Each locking-plate 108 is preferably formed by the upward displacement of a portion of the end-wall 98 of each terminal-hood 96 and is arranged parallel to and spaced from the adjacent extension 103 to receive one of two strap-ends 109—109 beneath it.

Each strap-end 109 just above referred to, is provided with a transverse series of anchoring-openings 110 through which the anchoring-pins 106 extend when the casing-parts 94 and 95 are in assembled positions. A suitable notch or opening 111 is formed in each of the end-walls 98—98 by the inward and upward displacement into the respective terminal-hoods 96—96 of an end-wall portion which constitutes one of the supports or locking-plates 108—108.

Suitable means for locating the anchoring-pins 106 of the inner casing-part 95, may be provided by means of locating-shoulders 112—112 formed in the outer casing-member 94 respectively adjacent each end of its top-wall portion 113—113. The said shoulders 112—112 are preferably constructed and arranged to respectively interengage with the upper edges of end-walls 102—102 of the inner casing-part 95 when the pins 106 are in registry with the anchoring-sockets 107.

The assembled casing-parts 94 and 95 are frictionally retained in assembled relation each to the other in the manner already pointed out in connection with other embodiments of the present invention.

While the manufacture of integrally-formed interfitting case-forming parts of the character disclosed in the several embodiments of the present invention described in the foregoing specification is not limited to any particular mode of procedure or to the employment of any particular kind of material, the said casing-parts may be manufactured in a simple and effective manner by the impact-extrusion of any suitable metal for this purpose such, for example, as aluminum which may be subsequently chromium-plated.

The invention may be carried out in other specific ways than those herein set forth without departing from the spirit and essential characteristics of the invention, and the present embodiments are, therefore, to be considered in all respects as illustrative and not restrictive, and all changes coming within the meaning and equivalency range of the appended claims are intended to be embraced therein.

I claim:

1. A wrist-watch case construction comprising: interfitting inner and outer case-forming parts assembled together, and being assemblable by relative movement oppositely toward one another, and in assembled relation providing a watch-receiving compartment; said outer case-forming part having fixed opposite end-walls each provided with a strap-end-receiving opening; said inner case-forming part having fixed opposite strap-end anchoring-means within said end-walls and extending in the general direction of assembly of said outer and inner parts; and flexible strap-ends, each having an integral portion extending through one of said openings and engaged and anchored by one of said strap-end anchoring-means.

2. A wrist-watch case construction comprising: interfitting inner and outer case-forming parts assembled together, and being assemblable by relative movement oppositely toward one another, and in assembled relation providing a watch-receiving compartment; said outer case-forming part having fixed opposite end-walls each provided with a strap-end-receiving opening; said inner case-forming part having fixed opposite strap-end anchoring-means within said end-walls and extending in the general direction of assembly of said outer and inner parts; and flexible strap-ends, each having an integral portion extending through one of said openings and engaged and anchored by one of said strap-end anchoring-means as a result of said assembling operation.

3. A wrist-watch case construction comprising: interfitting inner and outer case-forming parts assembled together, and being assemblable by relative movement oppositely toward one another, and in assembled relation providing a watch-receiving compartment; said outer case-forming part having fixed opposite end-walls each provided with a strap-end-receiving opening; said inner case-forming part having fixed opposite strap-end anchoring-means within and slidably engaging said end-walls and extending in the general direction of assembly of said outer and inner parts; and flexible strap-ends, each having an integral portion extending through one of said openings and engaged and anchored by one of said strap-end anchoring-means as a result of said assembling operation.

4. A wrist-watch case construction comprising: interfitting inner and outer case-forming parts assembled together, and being assemblable by relative movement oppositely toward one another, and in assembled relation providing a watch-receiving compartment; said outer case-forming part having fixed opposite end-walls each provided with a strap-end-receiving opening; said inner case-forming part having fixed opposite groups of strap-end anchoring-elements within said end-walls and extending in the general direction of assembly of said outer and inner parts; and flexible strap-ends, each having an integral portion extending through one of said openings and engaged and anchored by one of said groups of strap-end anchoring-elements.

5. A wrist-watch case construction comprising: interfitting inner and outer case-forming parts assembled together, and being assemblable by relative movement oppositely toward one another, and in assembled relation providing a watch-receiving compartment; said outer case-forming part having fixed opposite end-walls each provided with a strap-end-receiving opening; said inner case-forming part having fixed opposite

groups of strap-end anchoring-teeth within said end-walls and extending in the general direction of assembly of said outer and inner parts; and flexible strap-ends, each having an integral portion extending through one of said openings and engaged and anchored by one of said groups of strap-end anchoring-teeth pressed into such strap-end portion.

6. A wrist-watch case construction comprising: interfitting inner and outer case-forming parts assembled together, and being assemblable by relative movement oppositely toward one another, and in assembled relation providing a watch-receiving compartment; said outer case-forming part having fixed opposite end-walls each provided with a strap-end-receiving opening; said inner case-forming part having fixed opposite strap-end anchoring-means within said end-walls and extending in the general direction of assembly of said outer and inner parts; and flexible strap-ends, each having an integral portion extending through one of said openings and engaged and anchored by one of said strap-end anchoring-means; each said end-wall having a fixed locking plate extending along the upper surface of a said strap-end portion and having socket-means, and each said anchoring-means interengaging with a said socket-means.

LURELLE GUILD.