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E. GAUSS

2,157,288

ATTACHING HOOK FOR WATCH WRISTLETS

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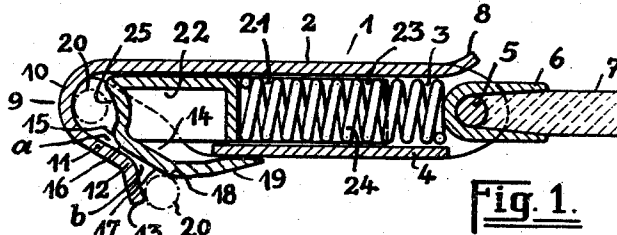


Fig. 1.

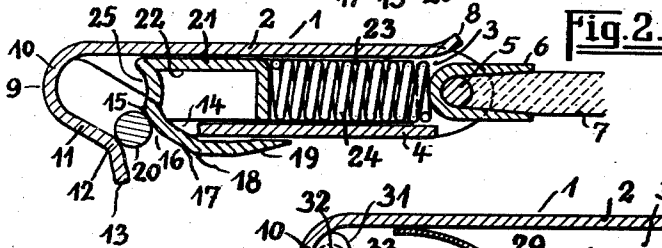


Fig. 2.

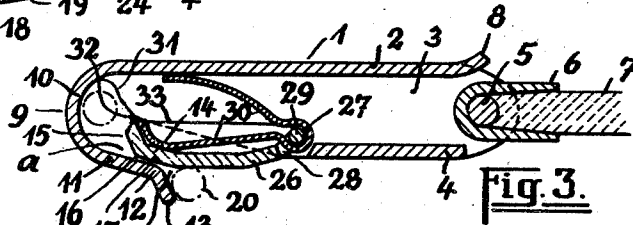


Fig. 3.

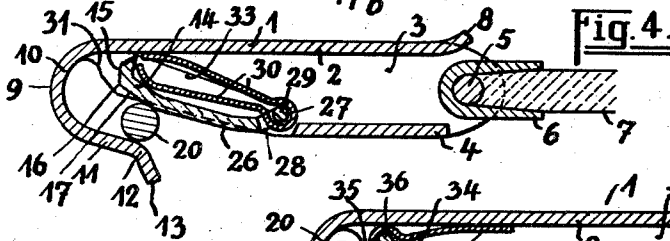


Fig. 4.

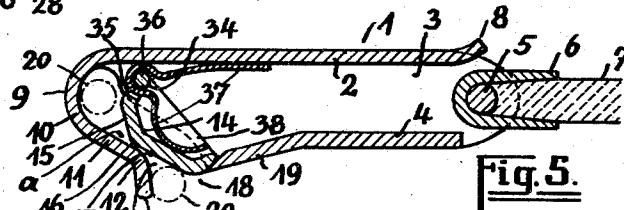


Fig. 5.

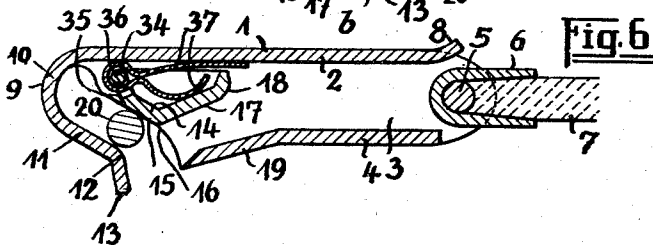


Fig. 6.

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ATTACHING HOOK FOR WATCH
WRISTLETS

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2 Claims. (Cl. 24—239)

This invention relates to an attaching hook for watch wristlets. Such attaching hooks serve to attach the ends of a wristlet to the eyes of a watch. Such hooks are employed also with watch wristlets made of two parts and adjustable in width to attach the rear end of the wristlet to which this hook is fixed on the connecting eye of a slidable element adapted to be shifted and secured on the other part of the wristlet. The invention consists particularly in a novel construction of the hooks and of the member closing the hook.

Three embodiments of the invention are illustrated by way of example in the accompanying drawing in which

Figs. 1, 3 and 5 show each in longitudinal section one of the three forms of construction in closing position.

Figs. 2, 4 and 6 are similar views, showing each of the attaching hooks in the open position.

In each of the three forms of construction of the invention all parts are arranged on or in a housing 1. The top plate 2, the side walls 3 and the bottom plate 4 of the housing enclose a hollow space of rectangular cross section open at the two ends. A hinge pin 5 is mounted in the two side walls at the rear end of the housing. On this hinge pin 5 an end of a wristlet 7 is fixed by means of a strap 6. The rear edge 8 of the top plate 2 of the housing is curved upwards. The end of the top plate 2 of the housing is bent to form a hook 9. In each form of construction this hook 9 is closed by a resilient element. The hook 9, which is the same in all three forms of construction is composed of a cylindrical portion 10 open towards the rear end of a plane guide part 11 slightly inclined in downward and rearward direction and of an end part 13 continuing the guide part 11 but bent off from the same at an obtuse angle 12.

The hook 9 is closed by a slidable closing element comprising a closing plate 14 opposite the end of the hook 9. The portion 15 of the closing plate 14 extends relatively to the inclined guide plate 11 of the hook 9 upwards and slightly inclined in forward direction towards the hook so that the guide parts 11 and 15 form between them a tapering guide channel *a* open towards the interior of hook 9. Portion 15 of the slidable element is bent at its lower end at an obtuse angle 16 and extends then as a plane guide part 17 partly parallel with the guide part 11 of hook 9 and forming with the end part 12 of hook 9 a passage *b* open towards the outer side. The end 19 of part 17 is bent upwards at an angle

18 and bears from below against the bottom plate 4 of the housing. The guide parts 11 and 17 of the hook 9 and a slidable closing element are almost in touch on a certain length. An eye on a watch or on any other article to which the wristlet is to be attached is designated by 20.

If the eye 20 is pushed into hook 9, it first rests upon the hook shaped end of the part 13 of the eye and if it is further pushed into the hook between the parts 13 and 17 it pushes back the spring controlled closing plate 14 so that the eye 20 can pass between the apexes of the angles 12 and 16 into the upper portion of hook 9. As soon as eye 20 has passed between the angles 12 and 16 the slidable closing plate 14 is pushed back by the action of its spring into the initial position and the hook is secured as the angle 16 engages over the angle 12.

The closing plate 14 shown in Figs. 1 and 2 forms a slide 21, the front portion of which has the shape of a box 22 open at the lower end. The side walls 23 of this box-shaped part extend to the rear. The slide 21 is longitudinally movable in the hollow space of housing 1. A flat spiral spring 24 in the housing 1 bears at the one end against strap 6 and at the other end against the vertical wall of box 22 so that the closing plate 14 is pressed into hook 9. By the co-operation of the guide parts 11 and 17 of the hook 9 and the closing plate 14 as described above with the eye 20, the closing plate 14 is pushed back in the housing 1 against the action of its spring 24 and pushed again into the open portion of hook 9 as soon as the eye 20 having passed through between the angles 12 and 16. The additional security against accidental detaching consists in this form of construction of a concavity 25 in the upper part of the closing plate 14 above the angle 15. The eye 20 engages in this concavity 25 and can be disengaged therefrom only if the hook 9 is pushed upwards so that the eye 20 then engages into the tapering passage *a*.

In the form of construction shown in Figs. 3 and 4 a plate 26 serves as closing element and forms a part of the bottom plate 4 of the housing 1. The rear end of this plate 26 has laterally projecting pins 27 engaging in bores of the side walls 3 of the housing directly above the bottom plate 4 of the same. A slot 28 in plate 26 forms a web 29 on which an approximately V-shaped blade spring is mounted, the upper arm of which bears against the top plate 2 of the housing and the lower arm against the upper side of plate 26. The front end of plate 26 forms the closing plate 14 with the portions 15, 16 and 17 which cooperate

with the portions 11, 12 and 13 of hook 9 when the eye 20 is pushed in or pulled out. The plate 26 is lifted by the insertion of eye 20 in opposition to the action of the blade spring 30. As the closing element in the form of plate 26 has to move in perpendicular direction, the closing plate 14 cannot extend upwards to near the top plate 2 of the housing. In this instance the front edge 31 of the side wall 3 of housing 1 serves as upwardly directed extension of the closing plate. This edge 31 forms the continuation of the guide parts 3, 15 of closing plate 14. In this manner the eye 20 during a mutual movement of this eye and the hook 9, is first guided downwards along the edge 31 and slides then onto the front edge of part 15 of the closing plate. To prevent also in this form of construction accidental opening of the attaching hook, the lower edge of edge 31 and the upper edge of closing plate 14 are bevelled, the two bevels together forming a notch 32. The eye 20 when moving out of hook 9 is first stopped in this notch 32 so that an additional upward movement of hook 9 is necessary to bring the eye 20 out of notch 32. The plate 26 with the closing plate 14 may have side walls 33 to prevent foreign bodies from entering the housing.

In the form of construction shown in Figs. 5 and 6 only the closing plate 14 serves as closing member. With this object in view, it is resiliently suspended directly behind the opening of hook 9, so that it can be oscillated in forward direction. Pins 34 projecting from the upper end of plate 14 are pressed in bores of the side walls 3 directly behind the top plate 2 of the housing so that the plate 14 can freely oscillate. By a slit 35 beneath the upper edge of plate 14 a rod-shaped portion 36 is formed which carries an approximately V-shaped spring 37, the upper arm of which bears against the top plate 2 of the housing and the lower arm against the inner side of the closing plate 14. Owing to the peculiar shape of hook 9 and of closing plate 14, which is the same as in the other two forms of construction, the closing plate 14 is pushed back by means of the eye 20. The closing plate 14 may have side walls 38 to prevent foreign bodies from penetrating into the housing. As, in this form of construction, the closing plate 14 carries out a large

amplitude of oscillation, it is shorter by the downwardly inclined portion 19 of the bottom plate 4.

In this form of construction, it is not necessary to provide any means for preventing accidental opening of the closing hook, as the eye 20, when pressing against the closing plate 14 encounters first the shorter lever arm of the same so that overcoming of the force of blade spring 37 and thereby the backward oscillation of the closing plate is rendered more difficult. Only if the hook is pushed upwards eye 20 slips down and therefore acts with greater leverage onto the closing plate 14.

I claim:

1. An attaching hook for wristlets for watches comprising a housing of rectangular cross section having top, bottom and side walls, a wide hook extending from one end of the top wall and directed downwardly, rearwardly and then outwardly relative to the top wall of said housing, a closing plate in the mouth of said hook, a resilient closing member mounted in said housing and resiliently bearing against said closing plate, the closing plate having a wall portion partially disposed inwardly of the hook, said hook and partial wall portion, each being obtuse angled in form defining acute angular guideways therebetween to facilitate attachment and separation from a connecting element of a watch wristlet.
2. An attaching hook for wristlets for watches comprising a housing of rectangular cross-section having top, bottom and side walls, a wide hook extending from one end of the top wall and directed downwardly, rearwardly and then outwardly relative to the top wall of said housing, a closing plate in the mouth of said hook, a resilient closing member mounted in said housing and resiliently bearing against said closing plate, the closing plate having a wall portion partially disposed inwardly of the hook, said hook and partial wall portion, each being obtuse angled in form defining acute angular guideways therebetween to facilitate attachment and separation from a connecting element of a watch wristlet and the closing plate having a notch inwardly at the point of the obtuse angled formation of the hook and closing plate wall portion.

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