Nov. 18, 1924. 1,516,363

C. N. WATSON

FASTENING DEVICE

Filed July 10, 1923

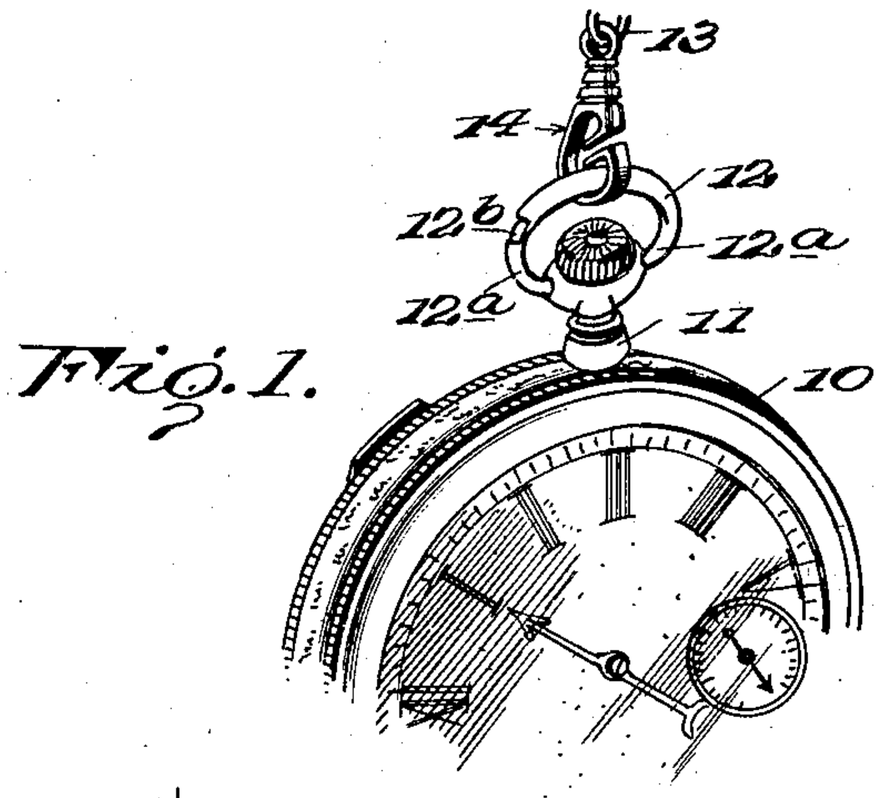

Fig. 1.

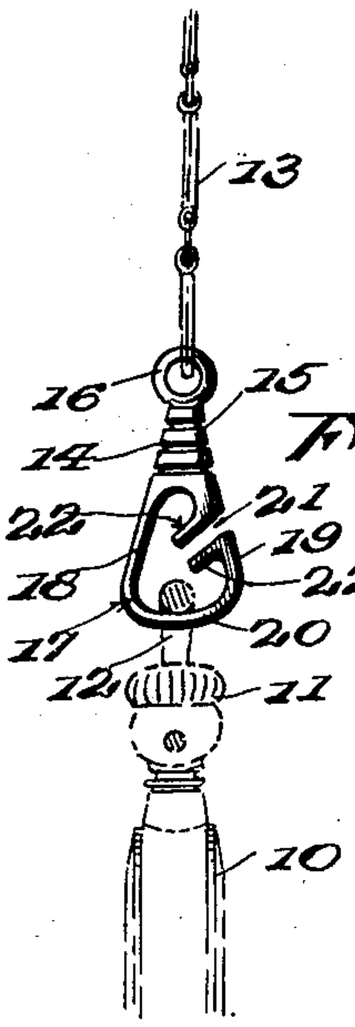

Fig. 2.

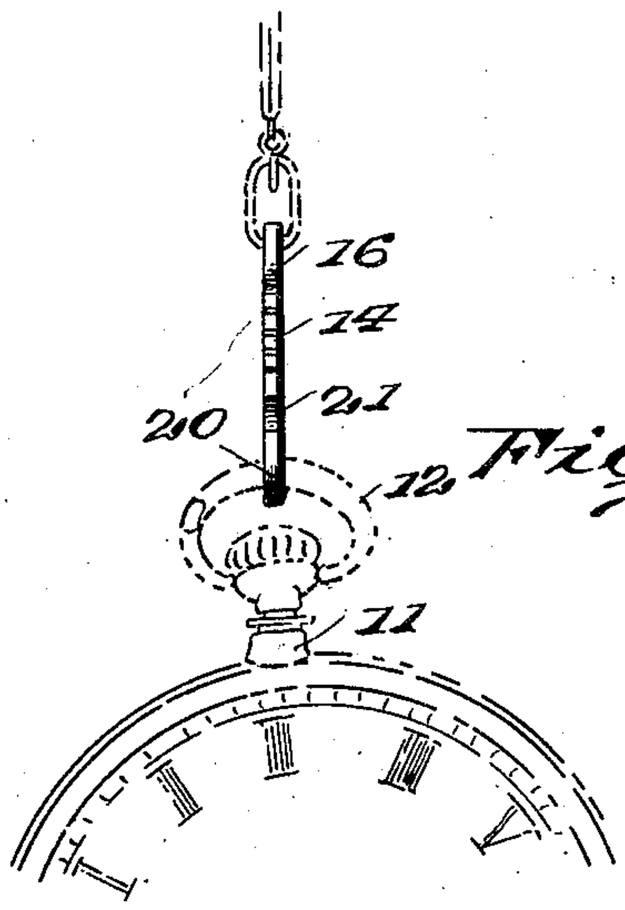

Fig. 3.

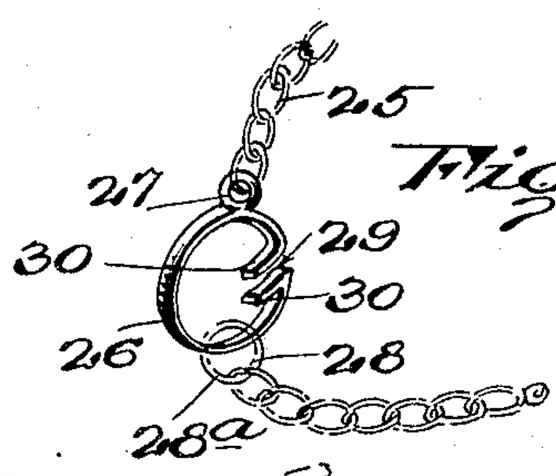

Fig. 4.

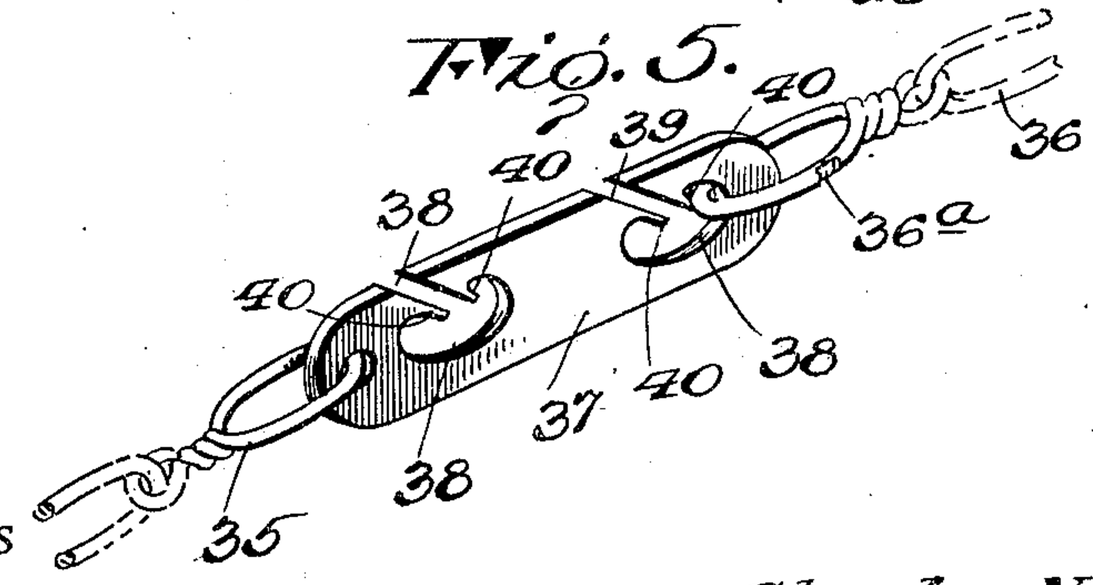

Fig. 5.

WITNESSES

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UNITED STATES PATENT OFFICE.

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FASTENING DEVICE.

Application filed July 10, 1923. Serial No. 650,697.

To all whom it may concern:

Be it known that I, CHARLES NEWTON WATSON, a citizen of the United States, and a resident of St. Joseph, in the county of Buchanan and State of Missouri, have invented certain new and useful Improvements in Fastening Devices, of which the following is a specification.

This invention relates to an improvement in fastening devices especially designed for securing a chain to an object or for securing the links of the chain to each other.

The object of the invention is to provide a device of this character which securely fastens and holds the chain to the object to which it is attached or which in the same manner holds and secures the links of a chain to each other without danger of accidental displacement while permitting ready and easy assembly and disassembly of the parts.

Another object is to provide a fastening device of this character and having the foregoing advantages and capacities and which is of simple and durable construction, reliable in operation and adapted to be manufactured at a comparatively slight cost from materials and by means of facilities ordinarily available.

Other objects and advantages of the invention reside in certain novel features of the construction, combination and arrangement of parts which will be hereinafter more fully described and particularly pointed out in the appended claim, reference being had to the accompanying drawings forming part of this specification, and in which:

Figure 1 is a fragmentary perspective view, showing the invention embodied in a fastening device designed for attaching the watch chain to the stem of a watch;

Figure 2 is a view in side elevation of the embodiment illustrated in Figure 1;

Figure 3 is a view in front elevation of the embodiment shown in Figures 1 and 2;

Figure 4 is a fragmentary perspective view, showing another embodiment of the invention;

Figure 5 is a fragmentary perspective view, showing still another form of the invention.

Referring to the drawings wherein for the sake of illustration is shown the preferred embodiments of the invention, and more particularly to Figures 1 and 3, inclusive, the numeral 10 designates a watch which is provided with the usual stem 11 upon which the ring 12 is mounted for swinging movement. A fragment of a watch chain is indicated at 13 and the fastening device which constitutes the present invention and which serves to connect the watch chain to the ring 12 is designated generally at 14. The fastening device 14 is constructed of a single piece of metal and includes a body portion 15 having integrally formed with one end thereof an eye 16 which is interengaged with an end link of the chain 13. The metal of the body portion at the opposite end from the eye 16 is extended and shaped to form a hook 17. The hook 17 is made up of substantially rigid bars including side bars 18 and 19 and a connecting end bar 20. The side bar 19 is provided with a transversely extending slot 21 which extends entirely through the bar to provide an entering and exit slot into the substantially enclosed opening defined by the hook 17. On each side of the slot 21 a retaining finger, designated at 22, is formed and is arranged to extend inwardly of the hook that is into the substantially enclosed space defined by the hook. Preferably the retaining fingers 22 extend at an angle to the transverse and longitudinal axes of the body portion and terminate at a point which is disposed at substantially or approximately the center of the enclosed space defined by the hook 17. The retaining fingers are, as shown in Figure 2, formed integral with the sections of the bar 19 of the hook and together with the slot 21 formed in this bar 19 define a constricted and narrow passage which alone affords entrance and exit to the enclosed space of the hook. Either of the narrow portions 12^a of the ring 12 are adapted to be passed through the constricted passage thus defined although if desired the constricted passage thus defined may be made small enough to preclude even passage of such portions 12^a in which event it will be necessary to form on the ring 12 a flattened and narrow portion 12^b which is adapted to pass freely through the constricted passage. Preferably, however, the arrangement is such that the small portions 12^a may pass through the constricted passage defined by the slot 21 and fingers 22. With this arrangement the hook employed for connecting the chain to the watch is constructed of

a single piece of metal, there being no spring or springy parts liable to be injured by wear or by strain and at the same time a hook of attractive and ornamental appearance is had and accidental displacement of the hook from the ring on the stem of the watch is precluded. Secure and reliable fastening action is had by virtue of the fact that only certain portions of the ring 12 may pass through the constricted passage defined by the slot 21 and retaining fingers 22 and by virtue of the arrangement whereby the inner end of the constricted passage which communicates with the interior of the hook is located at approximately the center of the enclosed space of the hook and also by virtue of the fact that the fingers 22 extend angularly into the space enclosed by the hook. These features preclude the possibility of the ring 12 accidentally passing into the constricted passage.

In the embodiment of the invention shown in Figure 4 the invention is shown as adapted for securing the ends of a necklace 25 together. In such embodiment it includes a body portion 26 taking the form of a ring-like structure and having an eye 27 integrally formed therewith or suitably secured thereto, the eye 27 being interengaged with one of the end elements of the necklace. The other end of the necklace is provided with a ring 28 which is adapted to be interengaged with the body portion 26. For this purpose the body portion 26 is provided at one point in its circumference with a slot 29 and on the opposite sides of the slot 29 inwardly extending retaining fingers 30 are formed and extend for the desired distance into the substantially enclosed space defined by the ring like body portion 26. The fingers 30 correspond to the fingers 22 in the embodiment shown in Figures 1 to 3, and like these fingers define with the slot 29 a narrow and constricted passage through which the ring 28 may be readily passed by the wearer of the necklace but which is effective to preclude accidental displacement.

In the embodiment of the invention shown in Figure 5, the fastening device is shown designed and adapted for use in securing the sections 35 and 36 of an anti-skid tire chain. As in the other embodiments of the invention, the fastening device includes a body portion 37 which preferably takes the form of a flat bar of metal. This body portion 37 is provided with one or more substantially enclosed openings 38 and is also formed with a slot 39 extending into each opening 38. Inwardly extending retaining fingers 40 are provided on the opposite sides of each of the slots 38 and as in the other embodiments of the invention extend into the substantially enclosed space 38 to the desired extent and are preferably disposed at an angle to the transverse and longitudinal axes of the body portion and of the openings 38. These retaining fingers 40 together with the slot 39 define a restricted and narrow passage affording the only means by which the links of the tire chain may be assembled with the openings. The fingers 40 are effective to prevent accidental displacement of the links of the chain but do not interfere with manipulation of the links for purposes of assembly and disassembly by the operator. In both of the embodiments shown in Figures 4 and 5 the constricted passage defined by the retaining fingers and the slot in the body portion may be of such size as to just admit of the passage of the ring 28 or the link of a tire chain as the case may be. Preferably, however, these restricted passages are made somewhat smaller than the link 28 and the links of the tire chain, and in order to permit of assembly and disassembly the link 28 is provided with a flattened portion 28^a and the links of the tire chain are provided with flat portions 36^a, these flat portions alone being susceptible of being passed through the constricted passages.

While I have herein shown and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise construction herein-shown and described as various changes in the form, proportion and the minor details of construction may be resorted to without departing from the spirit of the invention or the spirit and scope of the appended claim.

I claim:

A fastening device constructed of a single piece of metal and designed for releasably securing a watch chain to the ring on the stem of a watch, said fastening device comprising a hook made up of substantially rigid bars and having a slot in one of said bars to admit of assembly and disassembly of the hook with the ring, said hook being provided with retaining fingers arranged on the opposite sides of the slot and extending at an angle into the space within the hook to a point at approximately the center thereof.

CHARLES NEWTON WATSON.