April 4, 1950 J. M. OLDAK 2,503,167

SPRING HINGED CLIP

Filed Dec. 26, 1947

Fig. 1.

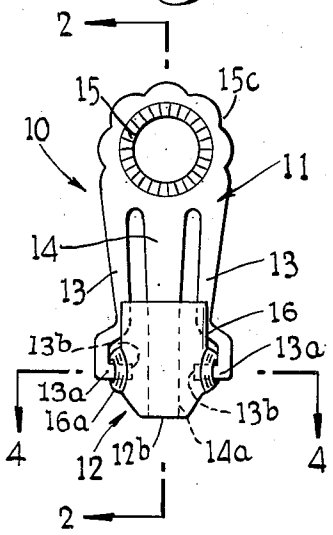


Fig. 2.

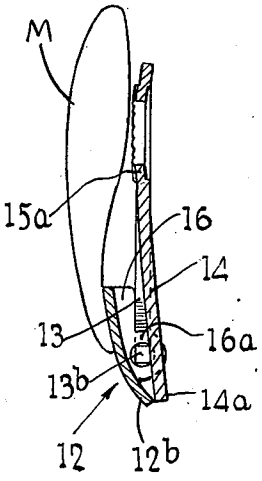


Fig. 3.

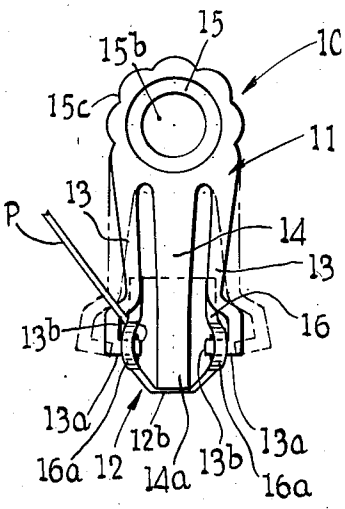


Fig. 5.

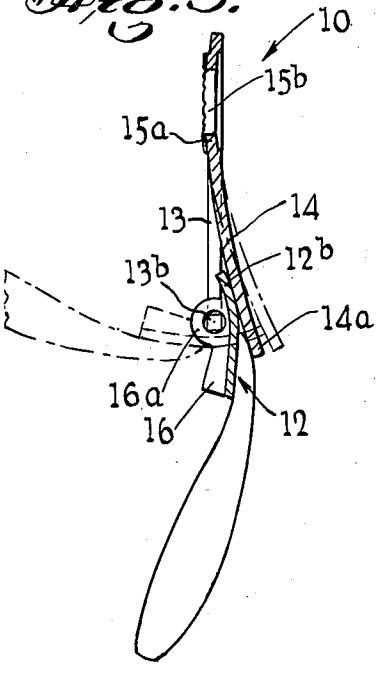


Fig. 4.

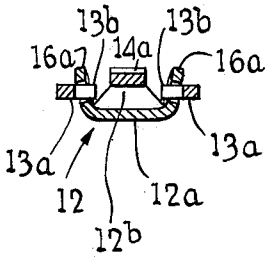


Fig. 6.

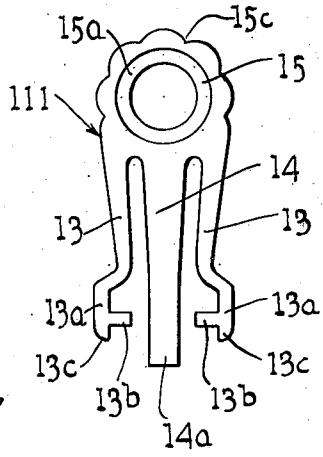
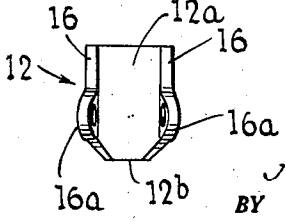


Fig. 7.



INVENTOR.
JACOB M. OLDAK
BY
Louis Barnett
ATTORNEY

Patented Apr. 4, 1950 2,503,167

UNITED STATES PATENT OFFICE

2,503,167

SPRING HINGED CLIP

Jacob M. Oldak, Brooklyn, N. Y., assignor to Niash Refining Company, New York, N. Y., a firm.

Application December 26, 1947, Serial No. 793,937

3 Claims. (Cl. 24—252)

1

This invention relates to spring hinge clips for earrings, buckles and the like and more particularly is directed to improved hinge constructions therefor.

Among the objects of the invention is to provide an improved hinge construction of the character described which shall comprise few and simple parts that may be speedily assembled to provide an improved clip hinge without requiring skilled manipulation or special tools, which shall be cheap to manufacture, and which shall be efficient and practical to a high degree in use.

Other objects of the invention will in part be obvious and in part hereinafter pointed out.

The invention accordingly consists of features of construction, combination of elements and arrangements of parts which will be exemplified in the construction hereinafter disclosed, the scope of the application of which will be indicated in the claims following.

In the accompanying drawing in which one embodiment of the invention is shown,

Fig. 1 is a front view of the spring hinged clip in closed position constructed and assembled to embody the invention, the usual ornamental member broken away.

Fig. 2 is a sectional view taken on lines 2—2 in Fig. 1 showing the usual ornamental member in closed position.

Fig. 3 is a rear view of the improved spring hinged clip showing one of the arms in dotted lines sprung out of the effective engaging position.

Fig. 4 is a detailed sectional view taken on lines 4—4 in Fig. 1.

Fig. 5 is a sectional view similar to Fig. 2 but showing the spring hinged clip in a full open position, the tongue shown fully sprung by the shoe in the dotted line position.

Fig. 6 is a view of a modified back clamping member of the spring hinged clip shown in Figs. 1 and 3 removed from the assembly, and

Fig. 7 is a view of the carrier portion removed from the assembly.

Referring in detail to the drawings, 10 denotes a spring hinged clip constructed to embody the invention. Said clip 10 is seen to comprise a back clamping member 11 having pivoted at one end thereof a carrier portion 12 which has either forming part thereof or mounted thereon a suitable ornamental member M as shown in Fig. 2.

The back clamping member 11 is preferably a one-piece structure made of resilient metal such as brass, nickel or steel for common use or an alloy of precious metals such as silver, gold or platinum for high priced jewelry. Said member

2

11 may comprise a pair of spaced apart resilient arms 13 which has extending therebetween an elongated spring leaf or tongue 14. Said arms 13 and tongue 14 may extend integrally from a gripping end 15 and lie substantially in the same plane as shown in Fig. 6. Arms 13 each terminate with a hook shaped portion 13a having an end 13b extending in alignment substantially at right angles with respect to the length of the tongue 14. Said ends 13b as shown in Fig. 3 are directed inwardly toward each other and terminate to permit the tongue 14 unobstructed movement therebetween, the latter having its free end 14a extended beyond said arm ends 13b. Gripping end 15 of back clamping member 11 may be provided with a suitable contacting knurled boss 15a here shown as a circular rim flange extending about an opening 15b provided in said gripper end 15. The latter may be scalloped as at 15c to provide an ornamental trim.

The carrier portion 12 may be made of material similar to that of back 11 and is preferably formed into a rigid structure by providing bent edge flanges 16 on opposite sides thereof which upstand from a front side 12a, said flanges 16 each having pierced ears 16a at one end thereof. The body portion between said flanges 16 extends beyond the ends of said ears as at 12b to provide a shoe for cooperating with the tongue end 14a when clip 10 is assembled.

The carrier portion 12 if desired may be made an integral part of the ornamental member M which may be of any desired design or said ornamental member M may be fixedly attached by soldering or otherwise to said front side 12a, the shoe 12b and part of the front side 12a being left uncovered to contact and spring tongue ends 14a as is clear from Figs. 2 and 5.

After constructing the parts of the clip 10 as described above and shown in the drawings they may be readily assembled by first inserting one of the arm ends 13b into one of the pierced ears 16a with carrier 12 facing the back clamping member 11 on the side thereof having the projecting boss 15a as shown in Figs. 1 and 2. Then by inserting a suitable prying instrument such as an awl, nail or fingernail in between the opposite arm 13a of the other ear as shown at P in Fig. 3, and prying the arm laterally as indicated in dotted lines the arm end 13b may be readily guided into the other pierced ear 16a on release of the prying force so that the said two ends 13b form a trunnion or hinge connection with said ears 16a. In this assembly the tongue 14 is displaced from its normal position in the plane of

the two arms 13 and serves as a tension spring to retain the gripping end 15 against the rear side of ornament M when in an effective closed position as shown in Figs. 1, 2 and 3, and serves to retain the carrier 12 with the ornament in an open position as shown in Fig. 5.

The back clamping member 11 in swinging with relation to carrier portion 12 and ornamental member M from the open position to the closed position is continually under influence of the action of spring tongue 14 as is clear from Fig. 5.

To disconnect the parts the prying instrument or fingernail may be inserted as shown in Fig. 3 at P and the arm sprung laterally to disengage the end 13b from its pivoting position in the pierced ear. The carrier 12 can then be readily disengaged from the back clamping member 11.

If desired a modified back clamping member 111 shown in Fig. 6 may be provided instead of the member 11. Back clamping member 111 may be made identical to member 11 except for integrally formed extensions 13c provided on each of the arms 13 which project beyond the ends 13b. The extensions 13c aid in retaining the assembly in alignment and counteract wear at the pivoting means.

The practical utility of the invention will now be apparent. The clip 10 assembled with a suitable ornament may be utilized for an earring or other clip clamping purpose by springing the carrier portion 12 with ornamental member M away from the back clamping member 11 and inserting an ear lobe or other support (not shown) therebetween. The knurled boss 15a will clamp the ear lobe or such support against the ornamental member and dependably secure the latter in a desired position.

Thus it is seen that the improved construction provides a back clamping member 11 having three resilient appendages, namely, tongue 14 lying between the spaced arms 13, which appendages normally extend before assembly in substantially one plane. The resilient tongue 14 is springable in a direction out of, that is, at right angle to said plane for co-acting with the shoe 12b in the assembly and for the operation described above, while the arms 13 are springable within said plane in a direction away from each other and said tongue 14 for assembling and dismounting the carrier portion 12 for pivotal engagement with said arms 13.

It will thus be seen that there is provided spring hinged clips whereby the several objects of this invention are achieved and which is well adapted to meet the conditions of practical use.

As various possible embodiments might be made of the above invention, and as various changes might be made in the embodiments above set forth, it is to be understood that all matter herein

set forth or shown in the accompanying drawings is to be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A hinged clip of the character described comprising a back clamping member formed of flat sheet material with a grip end and at least three spaced apart resilient appendages extending therefrom normally lying substantially in one plane, a carrier portion in swingable interlockment with said back clamping member, one of said appendages being an elongated tongue resiliently displaceable out of said plane, two other of said appendages extending along opposite sides of said tongue forming a pair of spaced apart arms laterally resilient for displacement in said plane, said arms having free ends formed to extend inwardly in alignment toward each other and toward said tongue in said plane, said carrier portion being formed with spaced apart upstanding pierced ears with which the free arm ends form said swingable interlockment, said clamping member having a prying slot between each arm and the tongue to facilitate a spreading of said ends by said lateral displacement of the arms with respect to each other in making and breaking said interlockment, and a shoe extending from said carrier portion between said ears contacting said resilient tongue for selectively spring pressing the carrier portion in open and closed positions.

2. The hinged clip as defined in claim 1 in which each of said arms has an integral extension projecting longitudinally beyond said free ends for retaining said carrier portion in alignment.

3. The hinged clip as defined in claim 1 in which each of said arms has an integral extension projecting longitudinally beyond said free ends for retaining said carrier portion in alignment and said grip end is formed with an integral circular knurled boss.

JACOB M. OLDAK.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,174,174	Markham	Mar. 7, 1916
1,767,596	Lott	June 24, 1930
1,892,918	Waller	Jan. 3, 1933
1,916,540	Strahm	July 4, 1933
2,095,785	Ziegenbein	Oct. 12, 1937
2,208,343	Reiter	July 16, 1940
2,423,905	Schuler	July 15, 1947