Jan. 2, 1934. S. SEGAL 1,942,220

CUTTING, FILING, AND SCRAPING IMPLEMENT

Filed Feb. 6, 1932

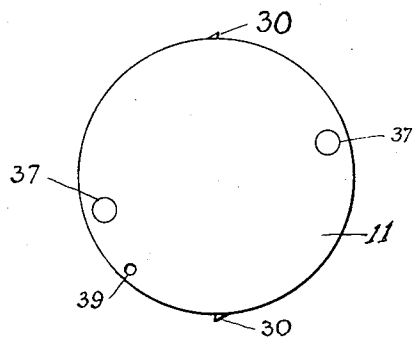


FIG. 1

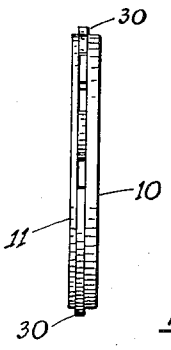


FIG. 2

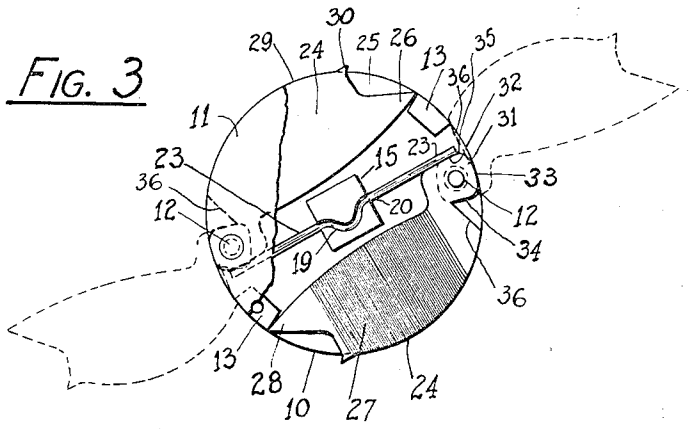


FIG. 3

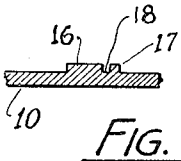


FIG. 5

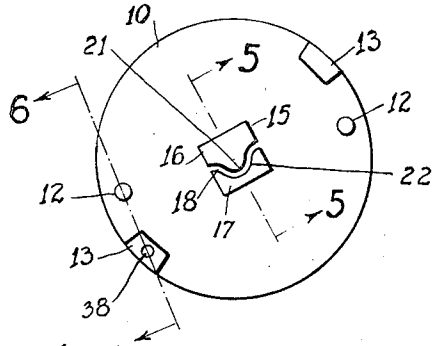


FIG. 4

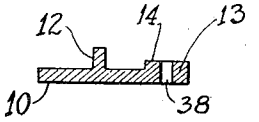


FIG. 6

Samuel Segal
INVENTOR

BY

ATTORNEY

Patented Jan. 2, 1934 1,942,220

UNITED STATES PATENT OFFICE

1,942,220

CUTTING, FILING, AND SCRAPING IMPLEMENT

Samuel Segal, New York, N. Y.

Application February 6, 1932. Serial No. 591,319

15 Claims. (Cl. 30—10)

The subject matter of this invention is a tool having oppositely disposed cutting and filing members pivotally mounted in a holder or casing formed by a pair of closely spaced discs.

It is an object of this invention to provide an improved filing, cutting and scraping implement having relatively few parts which may be easily and quickly assembled and which may be produced at a relatively low cost.

More particularly, another object of the invention resides in securing the opposed discs or coin shaped elements forming the holder in which the filing and cutting members are operatively sustained without employing supplementary fastening devices such as rivets or the like.

A further object of the invention is to provide a holder having two components one of which embodies a centrally arranged spring anchoring device for retaining an intermediate portion of a spring which has its free portions extending laterally beyond the anchoring device, which free portions cooperate with respective cutting or filing members to maintain the latter in a folded position within the holder or exposed position ready for use.

A still further object is to provide the cutting, filing and/or scraping elements each with a curved portion adapted to be arranged flush with the contiguous edges of the holder, the elements each comprising a protuberance which extends slightly beyond the limits of the holder when the members are folded or closed, which protuberances constitute means for readily swinging a respective member beyond the holder.

The manner in which the invention may be carried into effect together with the more detailed objects and advantages of the invention may be best understood by reference to the accompanying drawing forming a part thereof in which:

Fig. 1 is a plan view of the tool according to my invention.

Fig. 2 is a side view of Fig. 1.

Fig. 3 is a view of the tool partly broken away to show the interior construction and also illustrating in dotted lines the elements swung out of the holder.

Fig. 4 is an inside view of one of the complements or discs of the holder or casing.

Fig. 5 is a section on the line 5—5 of Fig. 4 and Fig. 6 is a sectional view taken on the line 6—6 of Fig. 4.

Referring to the drawing, the holder or casing according to the invention comprises a pair of closely spaced discs or components 10 and 11. In the form illustrated, it will be noted that disc 10 has on its inner face spaced fulcrum posts or studs 12. Preferably, these posts are cast or made integral with disc 10.

Adjacent each fulcrum post 12, disc 10 embodies a stop lug or shoulder 13. These shoulders are diametrically arranged and are preferably cast integral with the disc.

Each shoulder also includes a flat face 14 on which the other component 11 of the holder is seated when coin shaped parts or discs are assembled prior to fastening, the shoulders 14 also constitute spacing elements for holding the inner faces of components 10 and 11 a predetermined distance apart.

Viewed from Fig. 6 it will be noted that a terminal or free portion of a post 12 is a further distance away from the inner face of disc 10 than the flat face 14 of an associated shoulder.

Cast integral with component 10 and extending from inner face thereof is a spring anchoring device generallly designated 15. This device is arranged across the origin of disc 10 and between opposed fulcrum posts and stop shoulders. According to the form illustrated the anchoring device comprises a pair of spaced retaining instrumentalities or lugs 16 and 17. These lugs define a tortuous or wavy channel 18 adapted to receive a crimped or intermediate arcuately offset portion 19 of a relatively light weight and elongated resilient rod or spring generally denoted 20.

The wavy channel is formed by a crown shaped projection 21 which extends from lug 16 of the spring anchoring device and projects into but spaced from the side of reentrant recess 22 of the complementary lug 17, the channel being just wide enough to receive intermediate crimped or offset portion 19 of the spring 20 which is held anchored in the channel by coaction of the corresponding shaped faces of the undulating portions of the crown projection and recess of the complementary anchoring lugs.

Arms 23 of the spring project laterally of the anchoring device and the free terminal portions thereof extend between and within proximity to a post and an adjacent stop shoulder.

Pivotally mounted on each post 12 is a blade or manicuring element 24. In the form illustrated two posts are shown. To one of the posts is mounted a blade having a sharp cutting edge 25 and a pointed scraping end 26. To the other fulcrum post 12 is mounted a blade including knurled or roughened faces as 27 for filing and a pointed scraping end 28.

Each blade is provided with a curved outer face

29 which is flush with the outer circumferential faces of the spaced discs together with a projection 30 which extends slightly beyond the discs when a blade is within the holder whereby it may be swung from a closed or folded position in the holder indicated by full lines in Fig. 3 to an operative or exposed position for use as disclosed by the dotted lines in the same figure.

It will be noted that in the concealed or folded position of a blade, a scraping porton as 26 thereof is against an associated stop shoulder 13 which limits inward movement of the blade between the discs.

Each blade includes a laterally extending terminal perforated ear portion 31 comprising cam faces 32, 33 and 34, a pair of the faces being interconnected by a suitable curved corner 35, the ear portion of a blade being swingably mounted on a post 12. In the folded position of a blade, the free portion of an arm 23 of the spring bears against an adjacent cam face 32 and this action locks the blade in place between the discs of the holder. In this position its scraping end 28 is against an opposing stop shoulder 13.

Cam face 33 bears against an adjacent free end of the spring and holds a blade locked in an intermediate position between folded and open positions. Cam face 34 abuts the free end of the adjacent spring and holds the blade locked when extended for use, and in this position of a blade a rear rectilinear face 36 abuts an adjacent shoulder 13.

With the spring anchored and the blades mounted on their posts, the rear discs or complement 11 is arranged in such manner that its perforations 37 receive the opposed posts 12. The inner face of the disc 11 is uniformly flat and portions thereof lie flat against the flat faces 14 of the stop shoulders 13. The outer face of disc 11 is also flat.

Having arranged disc 11 on posts 12, the free portions of the latter may be slightly upset or struck to fasten this disc against the flat faces 14 of the stop shoulders or the free terminals of the posts may be snapped into perforations 37 and a slight pressure on the disc 11 fastens the latter to the posts.

Of course to enhance the appearance of the coin shaped implement heretofore disclosed, it is within the scope of the invention to provide a suitable design to the exposed sides of the discs. In actual practice, disc 10 may be a die casting and disc 11 a stamping from sheet metal.

In order that the coin shaped implement may be properly supported or hung from a watch chain or fob or the like, one of the shoulders 13 is provided with a perforation 38 adapted to register with marginal opening 39 of the disc 11 for receiving a link or annulus of a suitable construction usually associated with a watch chain or fob as is well understood.

As many changes could be made in the above method and many apparently widely different embodiments of the invention could be devised without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawing shall be interpreted as illustrative and not in a limiting sense.

I claim:

1. In a tool of the class described, a casing having closely spaced discs, one of which includes opposed shoulders, a post adjacent each shoulder, and an anchoring device comprising complementary spaced members centrally arranged thereon intermediate the posts and shoulders; a spring secured between said members, a blade pivoted to each post, each blade having a plurality of cam surfaces to selectively bear against an adjacent free portion of said spring, the other disc being adapted to receive said posts and operatively held thereby against said shoulders.

2. In a tool of the class described, a casing having closely spaced components one of which comprises opposed shoulders, a post adjacent each shoulder, and an intermarginal anchoring device having a tortuous channel, a spring having a portion secured in said channel and other free portions extending within proximity to a post and an associated shoulder, a blade pivoted to each post and having a plurality of cam surfaces for selectively abutting a free portion of the aforementioned spring, the other component being adapted to receive said posts and operatively held thereby against the shoulders.

3. In a tool, a casing having closely spaced components, one of which comprises an integral intermarginal anchoring device having a tortuous channel, a spring having a portion secured in said channel, and a blade pivoted between the components and having a plurality of cam surfaces for selectively abutting a free portion of said spring.

4. In a manicuring tool, a casing comprising a pair of closely spaced discs, one of which embodies an anchoring device disposed across the origin thereof and having a tortuous channel, spring means with a portion thereof removably secured in said channel and other free portions extending laterally of said device, and swingable means between said discs having a plurality of cam portions for selectively abutting said free portions.

5. In a manicuring tool, a casing having closely spaced components, one of which comprises an integral intermarginal anchoring device having complementary parts defining an irregular channel, a spring having a portion secured in said channel, a blade pivoted between the components and having a plurality of cam surfaces for selectively abutting a free portion of the spring and including a projection slightly outside the contour of said components.

6. As an article of manufacture, a casing having spaced components, one of which embodies opposed marginal shoulders, a post adjacent each shoulder and an anchoring device disposed across the origin thereof and defining an irregular channel; a spring having an offset crimped portion secured in channel and free portions extending beyond the device, blade means pivotally mounted on each post and having a plurality of cam surfaces for selectively bearing against a free portion of the spring, a projection on each blade for swinging thereof out of the casing, the other component being mounted on said posts and held thereby to said shoulders.

7. The article according to claim 6 characterized further in that one of the shoulders is perforated and said other component includes an opening in registration with the perforation of the last mentioned shoulder.

8. The article according to claim 6 characterized in that each shoulder limits outward movement of an adjacent pivotally mounted blade and further limits inward movement of an opposing pivotally mounted blade.

9. The article as defined in claim 6 in which each shoulder includes a flat face on which a

portion of the other mentioned component is seated, the shoulders providing a spacing element for the components.

10. The article as of claim 6 in which the aforementioned other component includes spaced openings through which said posts extend.

11. The article of claim 6 in which the aforementioned other component includes spaced openings for operatively receiving the terminals of said posts.

12. As an article of manufacture, a one piece member having integral spaced posts and shoulders between which is interposed and integral with said member a spring anchoring device.

13. As an article of manufacture, a disc having spaced posts and shoulders, and an intermediate spring anchoring device, the posts, shoulders and device being integral with the disc.

14. As an article of manufacture, a casing having spaced discs, one of which embodies diametrically opposed shoulders, a post adjacent each shoulder and an anchoring device disposed across the origin thereof and defining an irregular channel; a spring having an offset portion secured in said channel and free portions within proximity to a post and shoulder, swingable blade means mounted on each post and having a plurality of cam surfaces for selectively bearing against a free portion of the spring with a part thereof projecting slightly beyond the contour of said discs in the folded position of said swingable means.

15. A coin shaped implement for cutting, scraping and filing, including, in combination, a pair of closely spaced discs, one of which embodies diametrically opposed marginal shoulders, a post adjacent each shoulder, and an intermarginal spring anchoring device comprising opposed lugs defining a tortuous channel, a spring having an intermediate offset portion removably secured in said channel, swingable means mounted on each post and having a plurality of cam surfaces for selectively bearing against a free portion of the spring with a part thereof projecting slightly beyond the contour of said discs in the folded position of said swingable means, one of said lugs including a recessed portion in which a projection of the other lug extends.

SAMUEL SEGAL.