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July 15, 1930. T. A. WATSON 1,770,445

SIGHT FOR FIREARMS

Filed Feb. 21, 1927

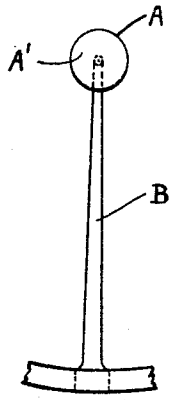


Fig. 1.

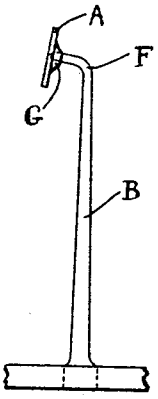


Fig. 2.

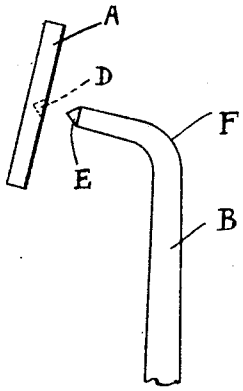


Fig. 3.

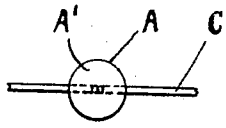


Fig. 4.

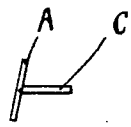


Fig. 5.

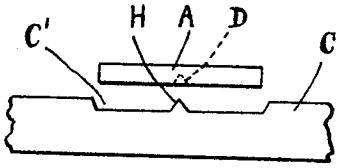


Fig. 6.

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28. GEOMETRICAL INSTRUMENTS.

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UNITED STATES PATENT OFFICE

THOMAS ARCHER WATSON, OF TORONTO, ONTARIO, CANADA

SIGHT FOR FIREARMS

Application filed February 21, 1927. Serial No. 169,886.

The principal object of the invention is to provide a front sight for fire arms which will at all times present an extremely accurate and distinct definition unaffected by the various light conditions encountered.

The principal feature of the invention consists in the arrangement of a disc having a flat reflecting surface on a non-reflecting supporting member of very slender cross section so that its flat reflecting surface is inclined forwardly at a slight angle to the vertical whereby the entire surface of the disc presents a distinct outline of reflection in definite contrast and relief to the supporting member.

A further feature consists in the novel manner of accurately positioning and securing the flat disc in place by providing the back face thereof with a central depression in which a projection on the supporting member is rigidly secured by means of soldering or brazing.

Figure 1 is a front elevational view of a sight constructed in accordance with the present invention;

Figure 2 is a side elevation view of the arrangement illustrated in Figure 1.

Figure 3 is a side elevational view of the disc and supporting member showing the two separated and illustrating the manner of centering the disc on the support.

Figure 4 is a front elevational view illustrating a slightly modified form of support for the disc.

Figure 5 is a side elevational view of the arrangement illustrated in Figure 4.

Figure 6 is a plan view of the disc and form of support illustrated in Figures 4 and 5 showing the manner of centering and mounting the disc thereon.

Objection has been found with the type of bead sight employing a spherical surfaced member in that a true reflection of light therefrom cannot be obtained due to the varying light conditions encountered, since a strong light of direct sunlight striking the globular surface of the bead from above or from one side will result in a pronounced reflection from that side only of the bead on which the light is striking bringing it into distinct prominence leaving the other areas of the bead more or less inconspicuous.

The natural result of this condition was that the marksman invariably took sight with regard only to the prominent or conspicuous reflective portion of the bead resulting in errors and considerable inconsistency in results, no matter how carefully the marksman appeared to take aim.

The present invention obviates the above difficulty by providing a sighting member formed of a flat disc A preferably of silver or gold, which is mounted on a slender vertical post B formed of metal having a dead black lustreless surface that will be free from reflective surfaces.

The disc A is preferably formed with a centrally arranged indent D in the back side which receives the centrally disposed pointed end E of the post B, thus centering the disc accurately on the end of said post. When thus centered the disc and post are then conveniently soldered with silver or gold solder or they may be brazed together as indicated by the letter G.

The post B as shown is bent at its upper end at the point F so that it extends at a slight incline from the axis of the gun. The surface A′ of the disc which is perfectly flat and brought to a satin finish, will be presented at an angle slightly off the vertical, it being found that an angle of approximately 10° to the perpendicular is productive of the most satisfactory results. As shown in Figures 1, 2 and 3 the disc is preferably secured to the support in axial relation to the angularly arranged end portion thereof.

In Figures 1, 2 and 3 I have shown the disc member supported on a slender vertical post but as shown in Figures 4, 5 and 6 equally successful results may be obtained by securing the disc A to a thin metallic ribbon C having a lustreless black non-reflective finish which is arranged in a horizontal position in the ordinary tubular or circular sight piece.

A depression C′ is preferably formed in the edge of the ribbon C to receive the disc A, which is accurately centered by the central pointed lug H arranged centrally of the depression C′ engaging in the central depres-

sion or indent D in the disc. The disc and ribbon are securely soldered together with the disc disposed at a slight angle to the perpendicular as illustrated in Figure 5 of the drawings.

With an arrangement such as described a very accurate and distinct definition or outline will be given the sight in that a true reflection of light will be obtained from the entire surface of the disc without regard to the angle at which the light may strike the surface so that the true outline of the same will be impressed on the marksman's eye, the light being reflected from all portions of the surface A′ of the disc with uniform intensity.

The supporting members B or C being of a non-reflecting nature and of extremely small cross-section will have the effect of giving still further relief or prominence to the actual sighting surface A′ of the disc and will offer the very minimum of obstruction to the view of the marksman.

A sight such as described will be found to possess extraordinary qualities particularly for all outdoor purposes whether it be in bright or dull weather.

Under certain conditions it may be found desirable to shut off the light from access to the disc surface A′ so that the disc instead of presenting a bright surface due to reflection will present a black or dark silhouette. This may be accomplished by mounting the disc in a container of a well known type on which a shade is used, and will be found to be very effective for certain kinds of target shooting.

It will be noted that in the present invention the support for the disc is of the most slender cross section and is of a lustreless black in order to render it as inconspicuous as possible from a reflective standpoint so that without being unduly prominent as to bulk or size it will offer a very distinct contrast in colour value with the polished reflective surface of the disc, having in actual effect the property of imparting to such satin-finished surface of the disc a remarkable degree of accentuation and relief, due to the contrasting of the reflective and non-reflective areas of the disc and support respectively, and due in part to the fact that the reflective disc is arranged in closer relation to the marksman's eye than is the actual supporting member, so that a highly effective sight is produced.

What I claim as my invention is:

1. A sight for fire arms, comprising a non-reflective support of a narrow cross-section having a centering projection thereon, a disc having one side flat and highly reflective and having a central depression in the other side to receive said centering projection, said disc being rigidly secured to said support while in its centered portion with its flat face arranged to slope at a slight angle from the perpendicular and having its transverse diameter extending in right angular relation to the line of sight.

2. A sight for fire arms, comprising a rigid support presenting a narrow lustreless surface toward the marksman, and a flat disc presenting a bright reflecting forward surface, said disc being rigidly supported entirely by its rearward side from said support and disposed forwardly thereof leaving the periphery of the disc entirely free to impart accentuated relief to the reflecting surface of the disc relative to the support, said disc being set at a slight angle from the perpendicular.

3. A sight for fire arms, comprising a slender non-reflective post rigidly mounted in a perpendicular position and having its upper extremity bent forwardly, and a flat reflective disc secured to the extremity of said forwardly bent portion.

4. A sight for fire arms, comprising a slender non-reflective post rigidly mounted in a perpendicular position and having its upper extremity bent forwardly and extending at a slight angle of inclination from the axis of the gun, and a flat reflective disc rigidly secured at its rearward side to the extremity of said forwardly bent inclined portion in axial alignment therewith.

5. A sight for fire arms, comprising a slender non-reflective post rigidly mounted in a perpendicular position and having its upper extremity bent forwardly and provided with a pointed end, a flat reflective disc having a central indent in one side to receive the pointed end of the support to effect the centering of said disc thereon, said disc being rigidly secured in its centered position to said post end.

THOMAS ARCHER WATSON.