

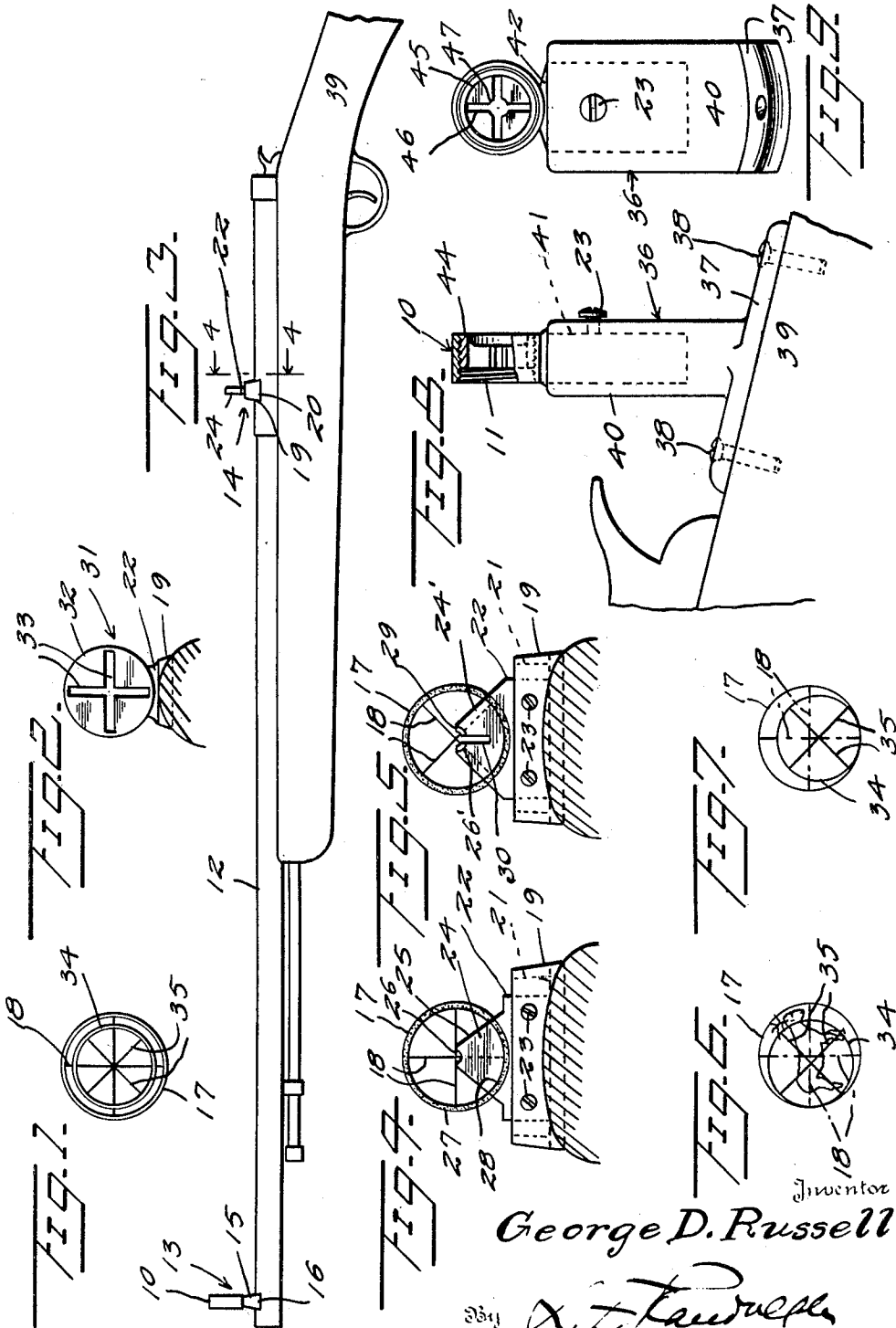
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FIREARM SIGHT

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FIREARM SIGHT

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2 Claims. (Cl. 33—47)

This invention relates to an improvement in firearm sights, and more particularly to an improved construction of sight which can be varied to accommodate the sight to varying light conditions and to the strength of the eye of the marksman.

Still another object of the invention is to provide a sight including front and rear sight members of different constructions, and wherein the rear sight member is preferably provided with a sighting opening or notch, and the front sight member preferably includes cross hairs to be alined with the sighting opening or notch when the firearm sight is alined on a target.

Still another aim of the invention is to provide a construction of firearm sight by means of which allowance can be made for leads on moving game or for elevation without changing the position of either of the sight members in their mountings.

Other objects and advantages of the invention will hereinafter become more fully apparent from the following description of the drawing, which illustrates preferred embodiments thereof, and wherein:

Figure 1 is a view showing a pair of sight members having cross hairs disposed as they would appear to the marksman with the sight members alined,

Figure 2 is a rear elevational view of a rear sight member,

Figure 3 is a side elevational view of a portion of a rifle provided with front and rear sight members,

Figure 4 is a sectional view taken substantially along the plane of the line 4—4 of Figure 3, and showing the sight members as they would appear to the marksman when the sight members are correctly alined with the marksman's eye,

Figure 5 is a view similar to Figure 4 of a slightly modified construction of the front and rear sights,

Figure 6 is a view similar to Figure 1 showing the sights out of alinement to provide a lead for a moving target,

Figure 7 is a view similar to Figure 6 but with the sights positioned out of alinement to provide elevation,

Figure 8 is a side elevational view, partly in vertical section of a rear sight mounting, and

Figure 9 is a rear elevational view of the same.

Referring more particularly to the drawing, wherein like reference characters designate like or correspondingly parts throughout the different views, 10 designates generally a ring shaped shell,

as best seen in Figure 8, which is internally threaded, as seen at 11. As seen in Figure 3, a rifle barrel 12 is provided with a front sight, designated generally 13 and a rear sight, designated generally 14. The front sight 13 includes a shell 10 having a base 15 attached thereto and which is dovetailed shape in cross section for engaging a similarly shaped transversely disposed groove 16, in the upper part of the barrel 12, as fully illustrated and described in my prior United States Letters Patent No. 2,256,411, issued September 16, 1941.

As seen in Figure 1, the front sighting element includes a ring 17 which is externally threaded to detachably and adjustably engage the threads 11 of the shell 10 of the front sight 13, and in which is mounted horizontally and vertically arranged cross hairs 18 forming a spider web effect. A dovetail shaped base 19 is mounted in a similarly shaped groove 20, adjacent the rear end of the barrel 12, and is disposed transversely thereof. The base 19 is provided with an upwardly opening elongated slot 21, as seen in Figures 4 and 5, which extends to adjacent the ends thereof for loosely receiving a tenon or shank 22 which is adjustably secured in the groove 21 by means of set screws 23. As seen in Figure 4, the rear sight 14 includes a plate 24, to the bottom portion of which the tenon 22 is attached, or the tenon 22 may be formed integral with the plate 24. The plate 24 is provided with upwardly converging corresponding side edges 25 which are disposed substantially at right angles to one another. The upper portion of plate 24 is provided with a substantially semi-circular upwardly opening notch 26, which forms a half of a snake eye and which is disposed between the upper, converging ends of the edges 25. The supporting ring 17 of the front sight 13, which is used with the rear sight 14, has its rear edge coated with a luminous material, as indicated at 27, in Figure 4. The rear side of the plate 24 is provided with an arcuately shaped strip 28 of luminous material.

When the front and rear sights 13 and 14 are correctly alined, they will appear to the marksman as they are seen in Figure 4, with the intersection point of the horizontal and vertical cross hairs 18 disposed in the top center of the notch 26. If the sights 13 and 14 are employed for night shooting, and the sights are correctly alined, as in Figure 4, the luminous strip 28 will combine with the portion of the luminous coated edge 27, of the ring 17, which is exposed to the eye of the marksman to form a complete circle.

Figure 5 illustrates a slightly modified form of the front and rear sights shown in Figure 4. The front sight is not modified in construction but the supporting ring 17 is turned in either direction through an arc of 45 degrees, from its position, as seen in Figure 4, so that the cross hairs 18 will be diagonally disposed. The rear sight, as shown in Figure 5, has a slightly modified construction of plate 24', which is wider at its base and top. The arcuately shaped notch 26' of the plate 24' is enlarged to receive an arcuately shaped insert 29 which may be either of gold, ivory or red plastic. The plate 24' is also provided with a substantially vertical slot 30, the upper end of which extends through the insert 29 to provide additional visibility through the rear sight element 24'. The back side of the plate 24' is provided with a luminous stripe 28 which combines with the luminous edge 27 of the ring 17 to form a luminous circle when the sights are correctly alined. It will be readily apparent that the use of the sight, shown in Figure 5, is identical with that of the sight, shown in Figure 4, except that the sight of Figure 5 provides greater visibility by the provision of the slot 30. Furthermore, it will be readily apparent that the position of the cross hairs 18, in Figures 4 and 5, could be reversed so that the sight of Figure 4 could include diagonal cross hairs, and the sight of Figure 5 perpendicular and horizontal cross hairs forming a spider web effect. Likewise, if desired, the cross hairs 18, for either of the sights shown in Figures 4 and 5, could be replaced by a front sight, not shown, provided with a snake eye.

Instead of the rear sights, as shown in Figures 4 and 5, a rear sight, designated generally 31, can be employed. This rear sight 31, as illustrated in Figure 2, includes a disk 32 from the lower portion of which projects a shank or tenon 22 which is mounted in a base 19, in the same manner as the tenons 22 which are connected to the plates 24 and 24'. The disk 32 is provided with horizontal and perpendicular slots 33 which intersect intermediate of their ends and which form "ray of light" openings in the disk 32. The disk 32 is adapted to be employed with a front sight 13 having horizontal and vertical cross hairs so that when the sights are correctly alined the horizontal and vertical cross hairs will be visible through the horizontal and vertical slots 33, respectively, and the cross hairs 18 will intersect in the intersection of the slots 33 allowing visibility as looking through a spider web. It will be readily apparent that the size of the slots 33 can be varied to compensate for varying light conditions and also for the strength of the eye of the marksman. Furthermore, the rear sight 31 is adapted for use on pistols and revolvers, and when so employed the width of the slots 33 would be increased to compensate for the fact that the rear sight 31 will be disposed at a greater distance from the eye of the marksman.

Instead of the rear sights, as shown in Figures 2, 4 and 5, a shell 10 could be attached to the tenon or shank 22 and supported thereby above the base 19 for receiving an externally threaded supporting ring 34. The mounting of a shell on a tenon is fully illustrated and described in my aforementioned patent. The shell 10 for retaining the ring 34 and the ring 34 would preferably be of a smaller diameter than the shell and ring of the front sight 13, as indicated in Figure 1. The supporting ring 34, as seen in Figure 1, is provided with cross hairs 35 which are arranged diagonally so that when the front and rear sights

were correctly alined, as seen in Figure 1, the intersections of the cross hairs 18 and 35 would coincide and provide easy visibility as if looking through a spider web. Obviously, the positions of the cross hairs 18 and 35 could be reversed, if desired. The sights, as shown in Figure 1, are especially adapted for use for hunting because of the fact that they will afford a much better view of a larger area to enable the sights to be more quickly alined on a target. Furthermore, the marksman can compensate for a lead on a moving target, without manually moving the sights by positioning the firearm so that the intersection of the cross hairs 18 of the front sight will be to the right of the intersection of the cross hairs 35 of the rear sight, as illustrated in Figure 6, or quick compensations for elevation can be made by positioning the rifle so that the intersection of the cross hairs 18 will be above the intersection of the cross hairs 35, as seen in Figure 7. However, the rear sights of each of the forms previously described, can also be provided with windage and elevation adjustments as in my prior patent, previously referred to.

Referring to Figures 8 and 9, instead of mounting the rear sight on the rifle barrel 12, as in Figure 3, the rear sight, of any of the aforementioned sights, can be mounted above and behind the rifle barrel by means of a support 36, as seen in Figure 8. The support 36 includes a base 37 which is detachably secured by fastenings 38 to the stock grip 39 of the rifle. The support 36 includes a standard or post 40 which extends upwardly from the base 37 and which is provided with an upwardly opening recess 41 for loosely receiving an elongated shank 42, which depends from a shell 10, for supporting the shell above the support 36. The shank 42 is adjustably and detachably secured in the recess 41 by means of a set screw 23. A supporting ring 44, corresponding in construction to the rings 18 and 34, is disposed in the shell 10 and in threaded engagement with the thread 11 thereof.

As seen in Figures 8 and 9, a disk 45 is fixed in the opening of the ring 44 and is provided with cross slots 46, similar to the slots 33. The disk 45 is provided with a central opening or snake eye 47 into which the inner ends of the arms of the slots 46 open to increase the visibility of the marksman through the disk 45. The disk 45 is adapted to be employed in conjunction with a pair of horizontal and vertical cross hairs 18, forming a part of a front sight thereof, or it may be used with diagonal cross hairs 35, and in the same manner as heretofore described with respect to the plate 32. However, where the disk 45 is employed with diagonal cross hairs 35 it will be obvious that only the portions of the cross hairs, adjacent their intersection, will be visible and in the opening or snake eye 47, when the sights are correctly alined.

If desired, plain or magnifying lenses could be mounted in the rings 17 and 34 and the cross hairs 18 and 35 could then be etched on these lenses or real spider web threads could be suitably applied to the lenses to form the cross hairs 18 and 35.

Various other modifications and changes are contemplated and may obviously be resorted to, provided they fall within the spirit and scope of the invention as hereinafter defined by the appended claims, as only preferred embodiments of the invention have been disclosed.

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I claim as my invention:

1. A rear firearm sight for coaction with a front sight member including cross hairs, said rear sight including a plate having upwardly converging side edges and unobstructed above 5 said side edges from one edge to the other edge, and the upper portion of said plate at the apex of said edge being provided with a substantially semi-circular notch, disposed between the converging ends of said side edges, said notch being 10 adapted for alinement with the intersection of the cross hairs when the front and rear sight members are alined on a target, and the back side of said plate being provided with an arcuately shaped strip of luminous material arranged 15 to combine with a complementary arcuate portion of a luminous coated edge of the gun sight to form a luminous circle when the sight members are in alignment.

2. A rear sight for firearms including a base member adapted to be detachably mounted on the stock grip of a rifle, a standard extending upwardly from said base member, said standard being provided with an upwardly opening recess, an internally threaded ring shaped shell having a depending shank for loosely engaging in said recess, means for detachably and adjustably securing the shank in the recess, a disk of a width not in excess of the width of said shell having a threaded periphery for removably and adjustably engaging the threads of the shell for detachably and adjustably mounting the disk therein, and said disk being provided with cross slots forming a sighting opening.

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