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SEARCH ROOM

Oct. 14, 1952 W. M. AUSTIN 2,613,442

GUN SIGHT

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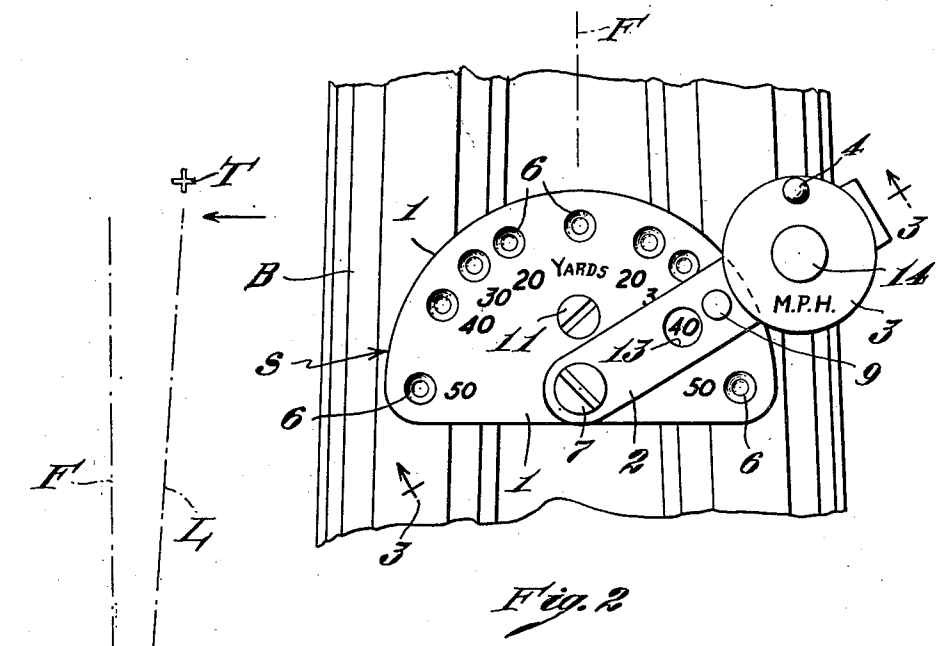


Fig. 2

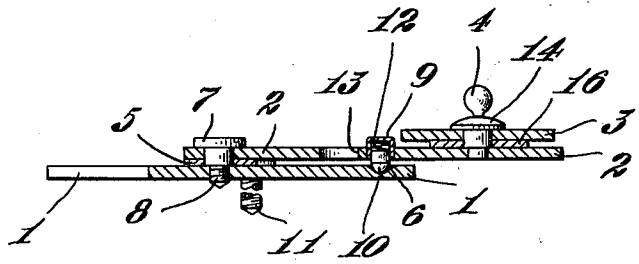


Fig. 3

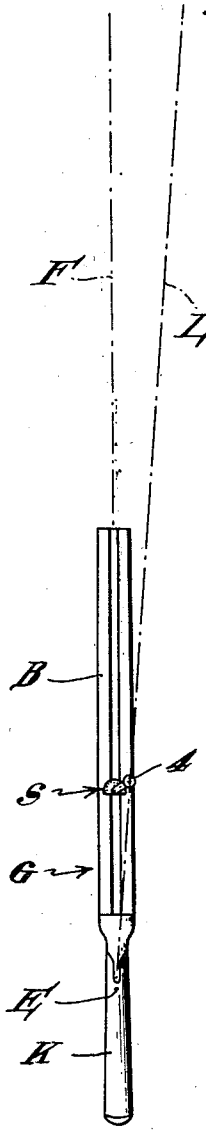


Fig. 1

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GUN SIGHT

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5 Claims. (Cl. 33—59)

1

This invention relates to an adjustable sight for aiming guns, and has for its object to provide a sight which may be quickly and simply set to compensate both for the range and velocity of a moving target.

In one aspect the invention relates to a device for aiming at targets moving transversely of the line of fire of the gun, and comprises a support adapted to be fixed to the gun, mounted on the support a distance indicator or like element movable to the right or the left of the line of fire distances corresponding to the distances from the gunner to the targets, and mounted on the distance indicator a velocity indicator movable to different positions corresponding to the velocities of various targets, said velocity indicator carrying a sight movable therewith transversely of the aforesaid line for sighting the targets, whereby the sight may be set to the correct lead angle for different target distances and velocities whether the target be moving to the right or to the left. Preferably the velocity indicator comprises an arm having one end mounted on the support and the velocity indicator comprises a disc rotatably mounted on the other end of the arm. The support may be calibrated both to the left and right of the line of fire in units of distance from the gunner to the targets, the distance indicating arm being adapted to swing over the scale either to the right or left. Preferably the velocity indicating disc is movable clockwise or counterclockwise to positions corresponding to target velocities.

For the purpose of illustration a typical embodiment of the invention is shown in the accompanying drawing in which

Fig. 1 is a plan view of a shotgun having the novel gun sight mounted thereon;

Fig. 2 is an enlarged view like Fig. 1; and

Fig. 3 is a section on line 3—3 of Fig. 2.

In the embodiment illustrated in the drawing, G in Fig. 1 designates a shotgun with a stock K and twin barrels B having a gun sight S fixed thereto. The sight S is mounted toward the rear of the barrel and at a suitable point such that a bead 4 of the sight and the position E of the gunner's eye above the stock K define the angle of a line of lead L relative to the line of fire F of the gun G.

As shown in Figs. 2 and 3 the sight S comprises a semi-circular plate 1 fixed to the barrels B by one or more machine screws 11. Adjacent the periphery of the plate 1 are a series of recesses 6 including a recess on the center line, or line of fire and other recesses at various positions to the

2

right and left of the center line corresponding to various ranges of the targets. Pivotally mounted by a pin 7, having a threaded portion 8 screwed in the plate 1 and spaced therefrom by a washer 5, is an arm 2 adapted to swing through 180° between a position in which it extends to the left at right angles to the line of fire F and a position which extends to the right at right angles to the line of fire. Intermediate its ends the arm carries a detent comprising a plunger 10 guided in a cylindrical cap 9 which is fixed to the arm 2. A spring 12 compressed between the plunger and cap yieldingly urges the plunger into one of the recesses 6 so as to hold the arm in any one of various adjusted positions. A window 13 in the arm exposes one of the numerals "20", "30", "40" and "50" marked adjacent the recesses according to the estimated range of the target.

At the outer end of the arm 2 is a rotatable disk 3 pivoted to the arm with a pin 14 and spaced therefrom by a washer 16. A bead 4 is fixed to the disk at its periphery. The disk 3 has three main positions, namely, with the sight in front of the pin 14, or to the left of the pin or to the right of the pin. For a target moving to the gunner's left at a speed of approximately thirty miles an hour it is rotated to a position to the left of the pin, for target speed of forty miles an hour in front of the pin, and for target speed of fifty miles an hour to the right-hand position. For targets moving to the right the thirty and fifty mile positions are reversed.

As previously mentioned the gun sight is used independently of any other front or rear sight on the gun, the line of sight being determined by the position of the gunner's eye and the bead 4. Thus if, as shown in Fig. 1, a target T is estimated to be at a range of forty yards and moving from the right of the gunner's position to his left at a speed of forty miles per hour, the arm 2 will be adjusted to a position to the right of the line of fire F at which the window 13 exposes the number "40" and the disk 3 is rotated to place the bead 4 in its front position.

It is apparent that the adjustments of the sight are simple and may be made very quickly, and that the sight makes it possible to aim the gun in such a way as to automatically compensate both for different ranges and velocities of the target and whether the target is moving to the left or right of the gunner's position.

It should be understood that the present disclosure is for the purpose of illustration only and that this invention includes all modifications and

equivalents which fall within the scope of the appended claims.

I claim:

1. A device for use in aiming at targets moving transversely of the line of fire of a gun, comprising a support, a distance indicator pivoted on said support to rotate to the right or left of said line distances corresponding to the distances from the gunner to the targets, pivoted off-center on said distance indicator a velocity indicator carrying a sight rotatable therewith transversely of said line to different positions corresponding to the velocities of various targets, whereby the sight may be set for the correct lead for different distances and velocities whether the target be moving to the right or to the left.

2. A device for use in aiming at targets moving transversely of the line of fire of a gun, comprising a support, an arm having one end pivotally mounted on said support to swing to the right or left of said line distances corresponding to the distances from the gunner to the targets, a disk rotatably mounted on the other end of said arm to move to different positions corresponding to the velocities of various targets, and a sight mounted off-center on said disk, whereby the sight may be set for the correct lead for different distances and velocities whether the target be moving to the right or to the left.

3. A device for use in aiming at targets moving transversely of the line of fire of a gun, comprising a support, a distance indicator mounted on said support to move to the right or left of said line over a scale on said support calibrated from the center both to the right and to the left in units of distance from the gunner to the targets, a velocity indicator movably mounted on said distance indicator, and a sight on said velocity indicator movable therewith transversely of said line to different positions corresponding to the velocities of various targets, whereby the sight may be set for the correct lead for different distances and velocities whether the target be moving to the right or to the left.

4. A device for use in aiming at targets moving transversely of the line of fire of a gun, comprising a support, a distance indicator pivoted on said support to rotate to the right or left of said line over a scale on said support calibrated from the center both to the right and to the left in units of distance from the gunner to the targets, pivoted off-center on said distance indicator a velocity indicator carrying a sight rotatable therewith transversely of said line to different positions corresponding to the velocities of various targets, whereby the sight may be set for the correct lead for different distances and velocities whether the target be moving to the right or to the left.

5. A device for use in aiming at targets moving transversely of the line of fire of a gun, comprising a support, an arm having one end pivotally mounted on said support to swing to the right or left of said line over a scale on said support calibrated from the center both to the right and to the left in units of distance from the gunner to the targets, a disk rotatably mounted on the other end of said arm to move to different positions corresponding to the velocities of various targets, and a sight mounted off-center on said disk, whereby the sight may be set for the correct lead for different distances and velocities whether the target be moving to the right or to the left.

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