

Dec. 21, 1937.

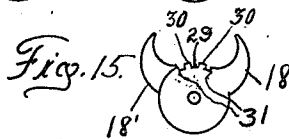
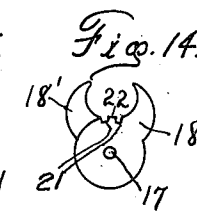
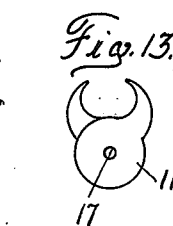
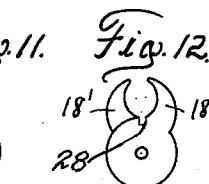
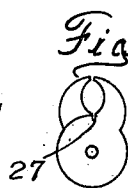
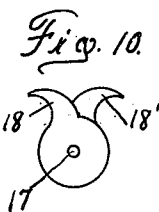
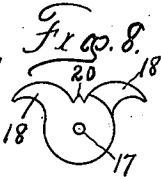
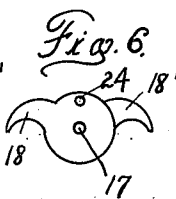
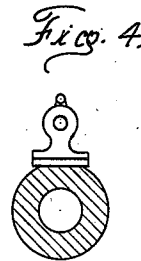
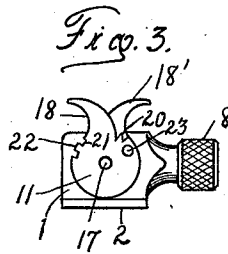
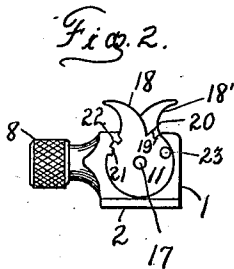
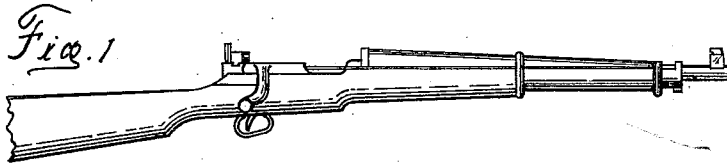
H. E. CAMPBELL

2,102,677

GUN SIGHT

Filed Dec. 16, 1936

2 Sheets-Sheet 1



Homer E. Campbell

INVENTOR.

BY

A. G. Burns

ATTORNEY.

1410

2P

53

Dec. 21, 1937.

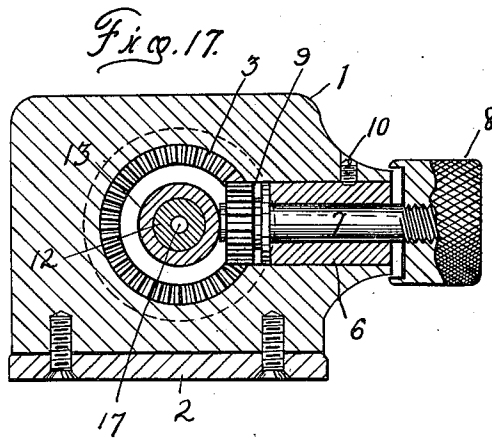
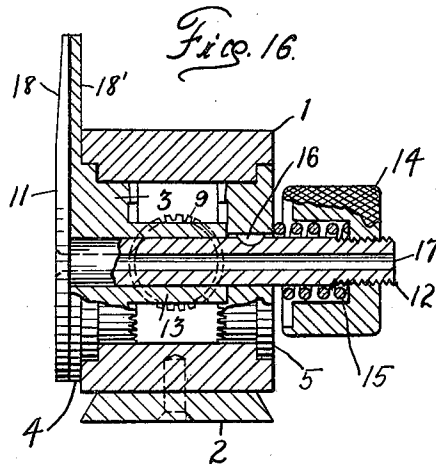
H. E. CAMPBELL

2,102,677

GUN SIGHT

Filed Dec. 16, 1936

2 Sheets-Sheet 2



Homer E. Campbell

INVENTOR.

BY

J. G. Burns

ATTORNEY.

Patented Dec. 21, 1937

2,102,677

UNITED STATES PATENT OFFICE

2,102,677

GUN SIGHT

Homer E. Campbell, Fort Wayne, Ind.

Application December 16, 1936, Serial No. 116,180

8 Claims. (Cl. 33—53)

This invention relates to improvements in gun sights, especially the sight for the breech end of a gun. An object of the invention is to provide a rear sight for a firearm, that has readily adjustable members so arranged and mounted on a gun that the marksman is enabled regardless of various conditions of light and shadows to center his vision through the device accurately in line with the bore of the gun barrel and the target.

Another object of the invention is to afford a rear sight having a small aperture extending therethrough to provide a peep opening for accurate aiming and also lateral wings so arranged as to enable the marksman to readily locate the peep opening.

A further object is to provide in an adjustable gun sight oppositely movable members having notches and projections so arranged as to be selectively brought into operative position and serve as a sight opening or point accordingly as positioned.

And a further object is to construct a rear gun sight having adjustable members so constituted as to operate selectively as an open sight in various degrees of openness or as a sight more or less restricted with respect to the sight opening accordingly as said members are adjusted.

Other objects and advantages of the invention will appear in the following description.

An illustrative embodiment of the invention is shown in the accompanying drawings, in which:—

Fig. 1 is a side view of a firearm to which the invention is applied;

Fig. 2 is a rear view of a gun sight embodying the invention arranged for left-handed operation;

Fig. 3 is a similar view of the gun sight arranged for right-handed operation;

Fig. 4 is a cross-section of a gun barrel including a front sight mounted thereon;

Fig. 5 is a diagram of the device adjusted for use as a wide open sight;

Fig. 6 is a diagram of the device adjusted for use as a peep sight;

Fig. 7 is a similar diagram showing the device adjusted to provide a V sight opening with lateral leads;

Fig. 8 is a view showing the device adjusted to provide a point and lateral notches or a W sight;

Fig. 9 is a diagram showing the device adjusted as a V sight;

Fig. 10 is a diagram showing the device adjusted as an elevated open sight for use in long range firing;

Fig. 11 is a diagram showing the device adjusted to provide an oval side opening and notch;

Fig. 12 is a diagram showing the device adjusted to provide a more or less restricted sight opening and a notch;

Fig. 13 is a diagram showing the device adjusted to provide a generous sight opening, commonly referred to as a "buck-horn" sight;

Fig. 14 is a diagram similar to Fig. 13, showing also a central projection and lateral notches;

Fig. 15 is another diagram showing the device adjusted to provide a central notch and lateral notches that are utilized selectively in sighting the firearm variably according to the strength of wind moving transverse to the line of fire;

Fig. 16 is a longitudinal section of the device; and

Fig. 17 is a transverse section of the device.

The illustrative embodiment of the invention consists of a block 1 having a bore extending therethrough provided with a base 2 by means of which the block is secured in the usual manner to the firearm. In one end of the block is rotatively mounted a gear 3 rotatable in the bore thereof and provided in its outer end with a face-plate 4, hereinafter more particularly described, and in the opposite end of the block is rotatively mounted a second gear 5 axially aligned in the block 1 with the gear 3.

In the block is secured a bushing 6 having journaled therein an operating shaft 7 provided on its outer end with a nut 8, preferably knurled, by which said shaft is manipulated. Upon the inner end of the shaft is secured a pinion 9 that has engagement with both of the gears 3 and 5 disposed so that upon rotation of the shaft 7 said gears are correspondingly moved angularly upon their axis respectively in opposite directions. The bushing 6 is held in place in the block preferably by a set-screw 10.

A second face-plate 11 is provided with a shaft 12 that extends through the hub 13 of the gear 4, and also through the gear 5, and has threaded on its outer end an adjusting nut 14, there being a compression spring 15 disposed within the nut that bears against the adjacent end of the gear 5. The gear 5 and the shaft 12 have a splined connection 16 that permits axial play of the shaft in said gear and prevents relative rotation thereof. By expansive force of the spring 15 the face-plate 11 is held against the face-plate 4, and the gears 3 and 5 are yieldingly held frictionally in place against the corresponding ends of the block 1. By adjustably turning the nut 14 on the shaft the pressure on the spring between the nut

14 and gear 5 is thereby varied as desired and the restraint to the turning movement of the gears and face-plates is modified accordingly. The shaft 12 has also an axial bore extending

5 therethrough to provide a sight opening 17. The face-plates 4 and 11 in profile are similar, the one being the counterpart of the other and disposed oppositely. Each face-plate has a curved prong or wing 18 and 18' and adjacent one side

10 of said prong is made notches 19 and an intervening spur 20, and upon the opposite side thereof are made notches 21 and an intervening projection 22.

The face-plates each have an opening 23 there-

15 in adapted to register with the corresponding opening in the other face-plate when the face-

plates are adjusted to a definite position and

thereby afford a peep sight opening 24.

The gears 3 and 5, pinion 9 and the shaft 12 are

20 assembled in connection with the block 1 rela-

tively so that the wings on the face-plates extend

opposite each other angularly to an equal extent

from a perpendicular line passing through the

sight opening 17. By this arrangement as the

25 face-plates are rotated upon their common axis,

by manipulation of the thumb-nut 8, the wings

18 and 18' are adjustably moved toward or from

each other and relative to the perpendicular line

to a more or less extent resulting in exposure of

30 the sight to the view of the marksman varying

with those indicated in Figs. 5 and 15 inclusive as

well as intermediate exposures.

Thus, when the face-plates are adjusted to the

position shown in Fig. 5 a wide open top sight is

35 afforded; when the plates are adjusted as in Fig.

6, a wide open top sight and also a peep-sight 24

is made available; when the plates are adjusted as

in Fig. 7, a wide open top sight is afforded in con-

junction with a V notch sight 25 and lateral leads

40 26 adjacent thereto; when the plates are ad-

justed as in Fig. 8, there is afforded a central

spur sight between the wings; when the plates

are adjusted as in Fig. 9, a V notch sight opening

45 19 between the wings is afforded; when the plates

are adjusted as in Fig. 10, a sight is afforded by

the convergence of the wings useful in firing at

long range; when the plates are adjusted as in

Fig. 11, a sight opening is afforded between the

wings and also a sight slot 27 contiguous with

50 the opening between the wings; in Fig. 12 the

plates are adjusted to afford a sight opening be-

tween the wings and a generous sight slot 28

contiguous with said opening; in Fig. 13 the plates

are adjusted so that the wings are spread apart

55 to afford a generous sight opening therebetween,

this form of sight being known generally by

marksman as a "buck-horn" sight; when the

plates are adjusted as in Fig. 14 there is afforded

a sight opening between the wings, a central pro-

60 jection 22 and the adjacent notches 21 on either

side thereof; and in Fig. 15 is shown the plates

adjusted so as to afford a central notch 29 be-

tween the wings and lateral projections 30 and

adjacent notches 31.

65 Through adjustments of the face-plates, ac-

complished readily by manipulation of the

thumb-nut 8, a wide variety of sight openings is

made available so that the marksman may select

the sight opening best suited to his atmospheric

70 environment. For instance, on a cloudy day,

when the light is not bright, there is afforded a

wide range and better view by turning the points

of the wings outwardly; and when the light is

bright a quicker more accurate view is obtain-

75 able by turning the wings inwardly toward each

other to constrict the sight opening therebe-
tween so as to clear up the blur and sharpen the
view of targets at various distances.

As the plates have curved wings, spurs, pro-
jections and notches, the marksman is enabled to
adjust the plates suitably for prevailing light con-
5 ditions, range, velocity of cross winds, and gauge
a suitable head lead in sighting the firearm on
moving targets.

The profile of the face plates, the arrangement
10 of the gears operatively associated therewith, and
the actuating means therefor are herein set forth
as merely an example of the invention. I do not,
however, restrict myself to the precise design of
the individual parts or their assemblage as shown,
15 as other designs and arrangement of parts may
readily be made by exercise of ordinary mechan-
ical skill.

What I claim is:—

1. An adjustable gun sight, said sight being
20 constituted of an apertured block including means
for attachment thereof to a gun, oppositely dis-
posed gears positioned respectively in the aper-
tured ends of said block to have rotary movement,
a face-plate secured to one of said gears provided
25 with a curved wing, peripheral notches and pro-
jections adjacent thereto, and also a peep sight
opening therein, a second face-plate, the counter-
part of the other face-plate, provided with a
shaft having an axial sight opening, said shaft
30 extending through said gears, a spring and ad-
justing nut therefor on said shaft for friction-
ally retaining said gears in operative position; and
an operating member including a pinion meshed
with both of said gears adapted to impart rotary
35 movement to said face-plates simultaneously in
opposite directions.

2. An adjustable gun sight, said sight being
constituted of an apertured block including means
for attachment thereof to a gun, oppositely dis-
posed gears positioned respectively in the aper-
tured ends of said block to have rotary move-
ment, a face-plate secured to one of said gears
40 provided with a curved wing, peripheral notches
and projections adjacent thereto, a second face-
plate, the counterpart of the other face-plate,
provided with a shaft having an axial sight open-
ing, said shaft extending through said gears, a
spring and adjusting nut therefor on said shaft
45 for frictionally retaining said gears in operative
position; and an operating member including a
pinion meshed with both of said gears adapted
to impart rotary movement to said face-plates
simultaneously in opposite directions.

3. An adjustable gun sight, said sight being
55 constituted of an apertured block including
means for attachment thereof to a gun, oppositely
disposed gears positioned respectively in the aper-
tured ends of said block to have rotary move-
ment, a face-plate secured to one of said gears
60 provided with a curved wing, peripheral notches
and projections adjacent thereto, and also a peep
sight opening therein, a second face-plate, the
counterpart of the other face-plate, provided with
a shaft extending through said gears, a spring
65 and adjusting nut therefor on said shaft for fric-
tionally retaining said gears in operative position;
and an operating member including a pinion
meshed with both of said gears adapted to im-
part rotary movement to said face-plates simul-
70 taneously in opposite directions.

4. An adjustable gun sight, said sight being
constituted of an apertured block including means
for attachment thereof to a gun, oppositely dis-
posed gears positioned respectively in the aper-
75

53

2,102,677

3

5 tured ends of said block to have rotary movement, a face-plate secured to one of said gears provided with a curved wing, peripheral notches and projections adjacent thereto, a second face-plate, the counterpart of the other face-plate, provided with a shaft extending through said gears, a spring and adjusting nut therefor on said shaft for frictionally retaining said gears in operative positions; and an operating member including a pinion 10 meshed with both of said gears adapted to impart rotary movement to said face-plates simultaneously in opposite directions.

5. An adjustable gun sight constituted of a block including means for attachment thereof to a gun, face-plates mounted in connection with said block to have rotary movement upon a common axis, said face-plates having oppositely curved wings, and also peripheral notches and projections adjacent the wings thereof, and a manually-operated gear mechanism adapted to impart equal rotary movement simultaneously in opposite directions to said face-plates. 15

6. An adjustable gun sight constituted of a block including means for attachment thereof to a gun, face-plates mounted in connection with said block to have rotary movement upon a com- 25

mon axis, said face-plates having oppositely curved wings, and a manually-operated gear mechanism adapted to impart equal rotary movement simultaneously in opposite directions to said face-plates.

7. An adjustable sight for a gun, said sight having two face-plates arranged adjacent each other and mounted to have rotary movement upon a common axis, each of said face-plates being the counterpart of the other and provided with a curved wing, and also having peripheral notches and projections adjacent the sides of the wings, and manually-operated mechanism associated with said face-plates adapted to adjustably turn said face-plates equally in opposite directions. 10 15

8. An adjustable sight for a gun, said sight having two face-plates arranged adjacent each other and mounted to have rotary movement upon a common axis, each of said face-plates being the counterpart of the other and provided with a curved wing, and manually-operated mechanism associated with said face-plates adapted to adjustably turn said face plates equally in opposite directions. 20

HOMER E. CAMPBELL. 25