

(No Model.)

P. KOTTLORS.
ALIGNED CIRCULAR GUN SIGHT.

No. 428,004.

Patented May 13, 1890.

Fig. 1.

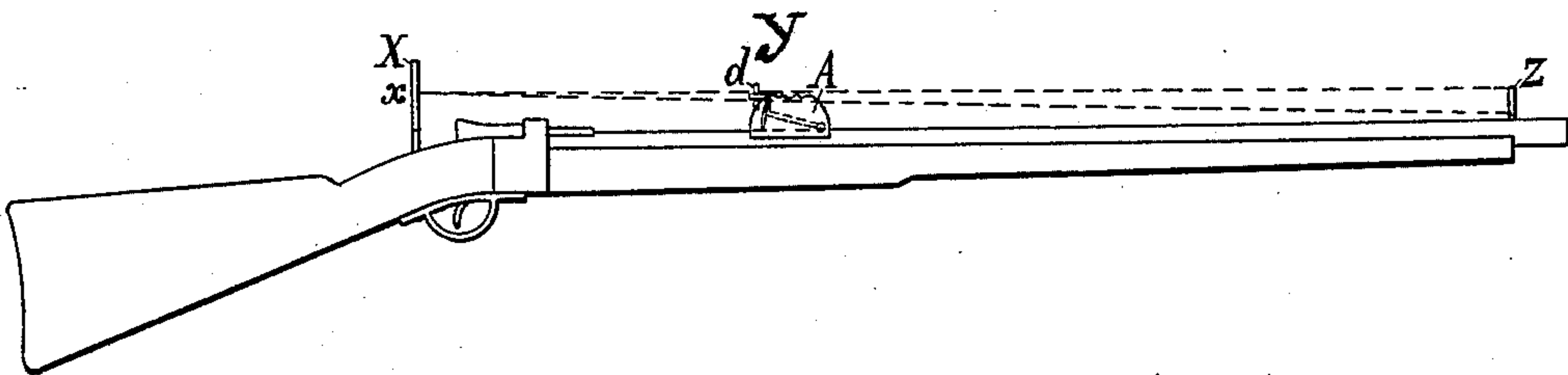


Fig. 4.

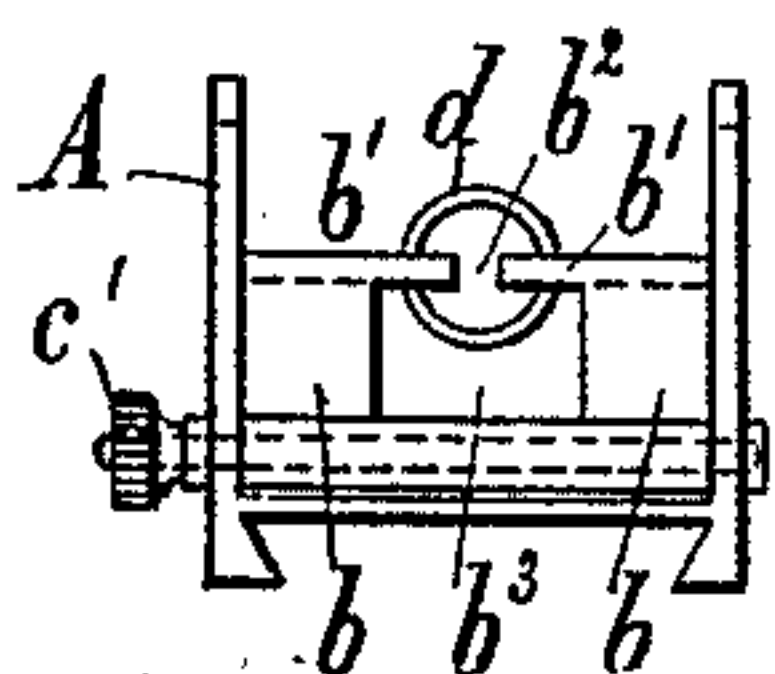


Fig. 2.

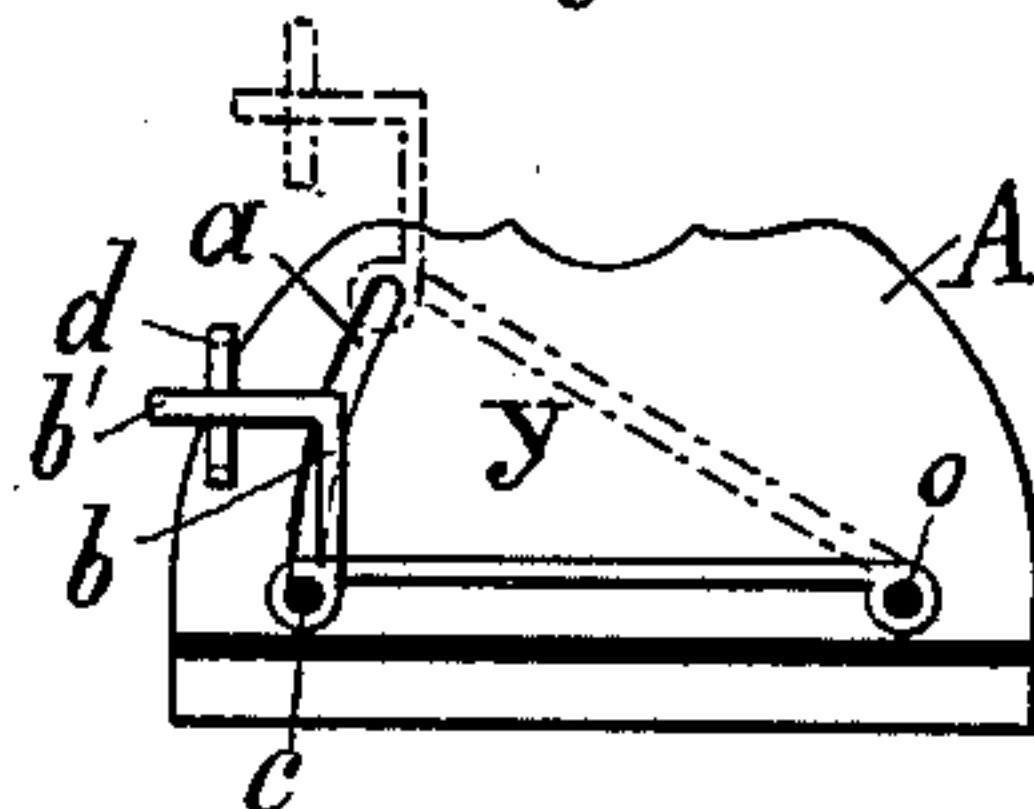


Fig. 5.

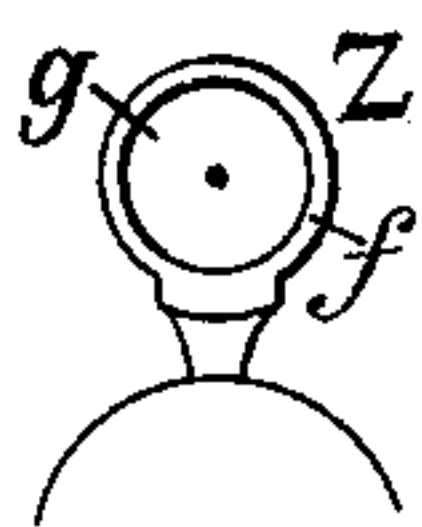


Fig. 6.

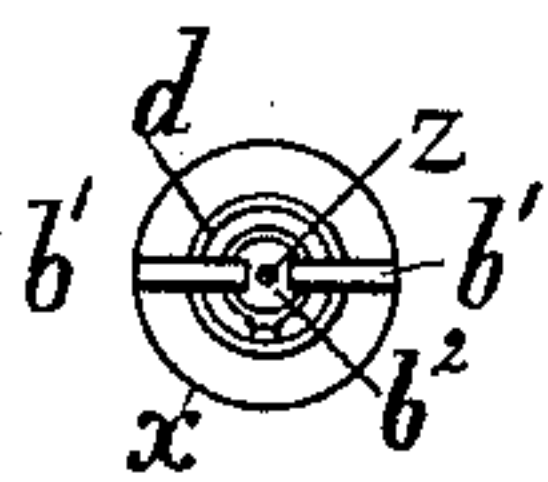
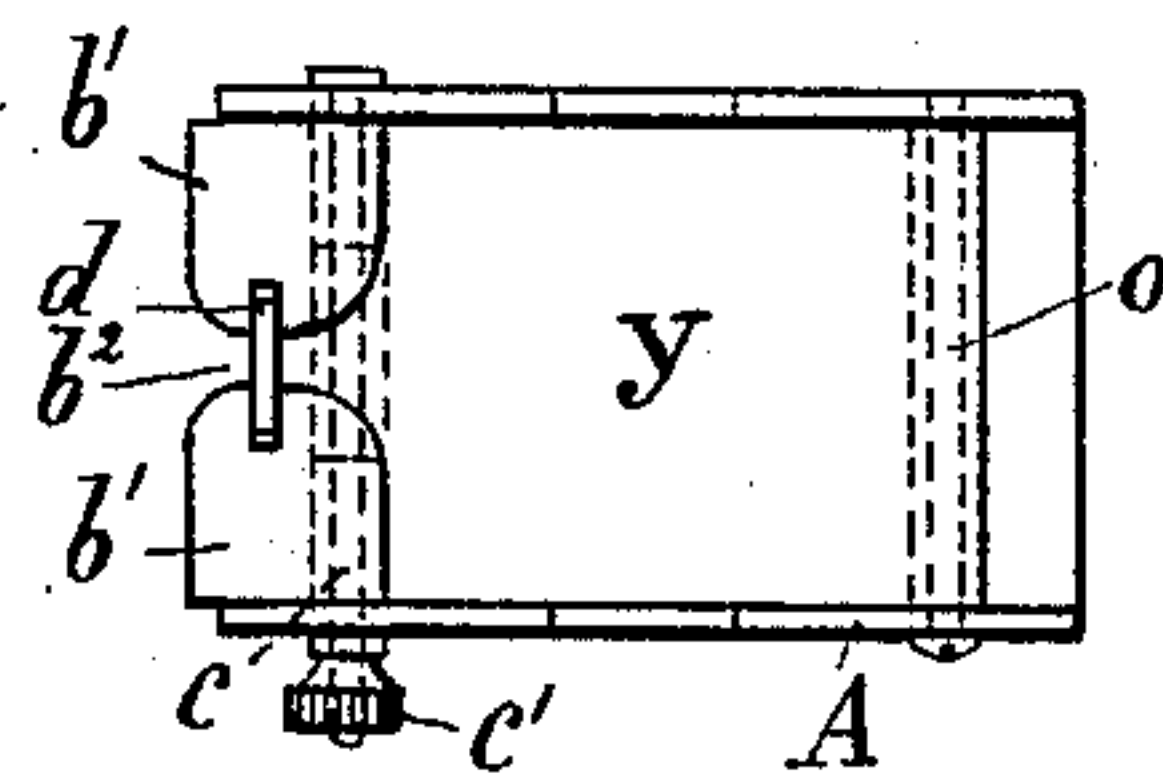


Fig. 3.



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PAUL KOTTLORS, OF KRAPPITZ, PRUSSIA, GERMANY.

ALIGNED CIRCULAR GUN-SIGHT.

SPECIFICATION forming part of Letters Patent No. 428,004, dated May 13, 1890.

Application filed January 14, 1890. Serial No. 336,940. (No model.)

To all whom it may concern:

Be it known that I, PAUL KOTTLORS, a subject of the Emperor of Germany, residing at Krappitz, a town of the Province of Silesia, Kingdom of Prussia, Germany, have invented certain new and useful Improvements in Sights for Fire-Arms, of which the following is a specification.

This invention relates to certain improvements in sights for fire-arms; and it consists in certain novel features of construction and in combinations of parts more fully described hereinafter, and particularly pointed out in the claims.

Referring to the accompanying drawings, Figure 1 is an elevation of a gun provided with the present invention. Figs. 2, 3, and 4 show an elevation, plan, and rear elevation, respectively, of the intermediate sight. Fig. 5 is an elevation of the fore sight. Fig. 6 is a view showing the vision or arrangement appearing to the riflemen when aiming a gun provided with the present invention.

Hitherto the aim of target-rifles was carried out, as is well known, by means of a gage, alidade, or a split block, a back sight provided with a notch, and a stud or fore sight. When aiming by means of this arrangement the rifleman perceived the image through the opening of the sight-piece.

By this invention a rapid and accurate aiming which does not strain the eyes can be obtained by fixing the aim with the aid of whole circles aligned so that one straight line passes through the centers of all the circles, and the vision seen consists of concentric circles.

The intermediate sight y is arranged in a U-shaped frame or shell A, with the rear end of the sight pivoted upon a bolt o , to which it is fixed. The front and free end of the sight y carries a horizontal right-angled piece $b b'$, provided in the center with two notches $b^2 b^3$. In the horizontal arm b' of this rectangular piece is vertically fixed over and across the notch b^2 a circular open ring d , so that the ring projects an equal distance above and below and on each side of the notch, and with both sides of the notch b^2 extending also an equal distance within such ring, as clearly shown in Fig. 4. The notch b^2 has a width of about two millimeters, while the notch b^3 in the vertical arm b is a little wider than the

outer diameter of the ring d , so as not to interfere with the vision through the ring.

The clamping-bolt c at the free end of the sight-body passes through the segmental slots a in the side walls of the frame A, and is provided with a head at one end and with a screw-thread and a nut c' at the other. By screwing this nut the sight can be set and fixed at any suitable height. When the said sight has to be adjusted or shifted, the nut c' is slightly loosened, the sight-piece $y b b'$ is raised the distance required, the rectangular piece $b b'$ is then placed in such a position that the sighting-ring d is on a line between the centers of the ring d and the foresight Z, and the nut c' is screwed on again.

The fore sight Z, Fig. 8, is formed of a disk g , of clear glass inserted in a ring f . This disk, having a diameter of about ten millimeters, has in its center a dark point or speck burned in or formed in any other suitable manner. The fore sight Z may, however, consist of a metallic ring, in the center of which a small disk or pea could be fixed by means of radial arms or spokes. Owing to the peculiar arrangement of the fore sight the object being fired at remains, when taking the aim, entirely and constantly in sight.

The back sight or gage X consists of an opening x , carried by a suitable vertically-adjustable support. The rifleman perceives, as he looks through the circular opening x of the disk of the gage, back sight, or split block X, the image shown in Fig. 6, and it is therefore very easy for him, on account of the circular form of the aim and of the fore sight, to repeatedly, rapidly, and accurately obtain or readjust this image. Owing to the intermediate sight leaving only a small transparent opening free in the center of the sighting-ring the aiming or sighting is greatly facilitated, as it is only required to place the center of the fore sight z in a line with the center of the transparent opening, so as to make them coincide.

The frame or shell A, carrying the intermediate sight-piece, is arranged to slide backward and forward a distance of about ten millimeters upon the barrel of the rifle, in order to be able to bring, with the aid of the opening in the back sight, the sighting-ring d at an equal distance from the ring of the foresight

and from the edge of the said opening, whereby an accurate sighting is particularly facilitated.

It is evident that various changes might be made in the form and arrangement of the parts described without departing from the spirit and scope of my invention; hence I do not wish to limit myself to the precise construction herein set forth.

Having thus fully described my invention, what I claim is—

1. A sighting apparatus for guns, consisting in the combination of a back sight having a clear circular opening, an intermediate sight having an unobstructed ring or circular opening, and a fore sight having a circular sight with a central sighting-point, said three circles being aligned, substantially as described.

2. An aiming apparatus for guns, consisting of three aligned circles or rings at opposite ends and intermediate of the gun, substantially as described.

3. A sighting apparatus for guns, consisting of a rear sight having a circular sighting-opening, an intermediate sight having a circular ring provided with means to determine the vertical aim, and the fore sight having a circular sight provided with a central sighting-point, said three circles being aligned, substantially as described.

4. The combination, with the rear gage, of the vertically-adjustable intermediate sight adjustable longitudinally on the gun-barrel and consisting of a circular ring, and the fore sight consisting of a transparent circle having a central sighting-point, said two circles being aligned, substantially as described.

5. In a gun-sight, a sight consisting of a vertical circular unobstructed ring and two

horizontal separate arms connecting said ring with the sight-piece, said arms horizontally projecting toward the center and from diametrically-opposite sides of said ring, as and for the purposes set forth.

6. A gun-sight comprising a sight, consisting of a vertically-adjustable vertical open circular ring, and two horizontal arms supporting the same and having their ends projecting into the ring and located on diametrically-opposite sides of the center of the ring to adjust the vertical aim, in combination with the fore sight, consisting of a circular glass having a central sighting-point and aligned with said ring, substantially as described.

7. A sight consisting of a horizontal right-angled portion carried by a vertically-adjustable frame and provided with a central opening or notch, and a vertical open circular sighting-ring supported in said opening by two horizontal arms only, partially and centrally projecting into the ring from diametrically-opposite sides of the same, substantially as described.

8. A gun-sight comprising a sight, consisting of a U-shaped shell longitudinally adjustable on the gun-barrel, a sight-piece in said frame pivoted to allow its free end to swing vertically, means to clamp said free end in the desired adjustment, and an open circular sighting-ring carried by said rear end of the sight-piece, as and for the purposes set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

PAUL KOTTLORS.

Witnesses:

ALEXANDER KAPSA,
PAUL THORAUSSL.