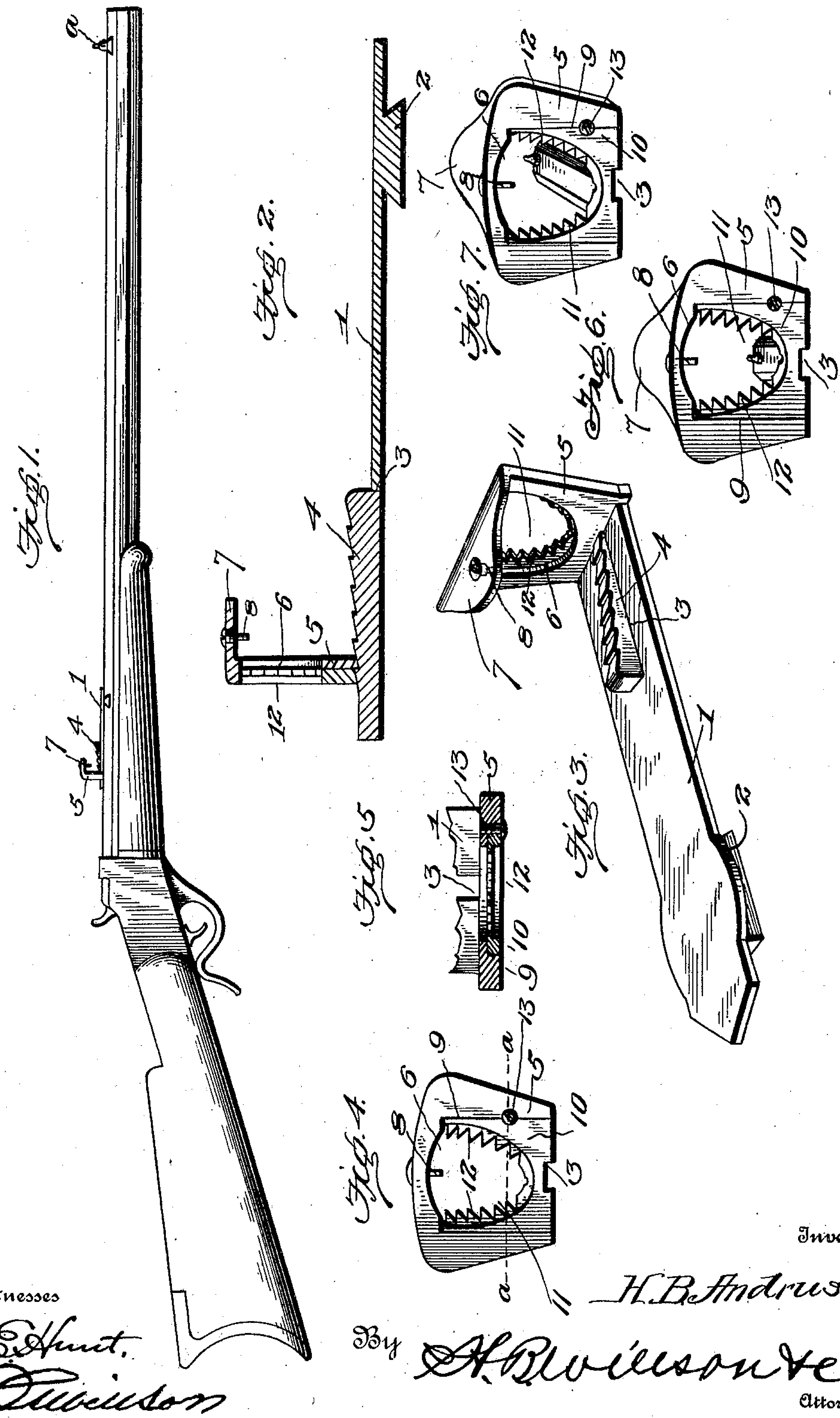
No. 747,350. PATENTED DEC. 22, 1903.

H. B. ANDRUS.

GUN SIGHT.

APPLICATION FILED DEC. 11, 1902.

NO MODEL.



Witnesses

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No. 747,350. Patented December 22, 1903.

UNITED STATES PATENT OFFICE.

HERBERT B. ANDRUS, OF DILLON, MONTANA.

GUN-SIGHT.

SPECIFICATION forming part of Letters Patent No. 747,350, dated December 22, 1903.

Application filed December 11, 1902. Serial No. 134,809. (No model.)

To all whom it may concern:

Be it known that I, HERBERT B. ANDRUS, a citizen of the United States, residing at Dillon, in the county of Beaverhead and State of Montana, have invented certain new and useful Improvements in Rear Sights; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention is an improved rear sight of the class known as "globe-sights," especially adapted for use on rifles; and it consists in the construction and combination of devices hereinafter fully described and claimed.

The object of the invention is to provide an improved rear sight by means of which rifles or other firearms may be accurately aimed either at a stationary or moving target and either during a calm or when the wind is blowing without the necessity of previously adjusting the sight to compensate for the deviation of the projectile or for the speed of the target at which aim is taken.

In the accompanying drawings, Figure 1 is a side elevation of a rifle provided with a rear sight embodying my improvements. Fig. 2 is a vertical longitudinal sectional view of my improved rear sight. Fig. 3 is a front perspective view of the same. Fig. 4 is a rear elevation of the same. Fig. 5 is a horizontal sectional view of the same, taken on the plane indicated by the line *a a* of Fig. 4. Figs. 6 and 7 are rear perspective views illustrating the use of the sight.

In the embodiment of my invention here shown I employ a spring base-plate 1, provided on its under side near its front end with a wedge 2, adapted to be secured in a transverse notch in the upper side of the rifle-barrel at a suitable distance from the rear end thereof in order to secure the base-plate on the rifle-barrel. The base-plate is provided at its rear end with a longitudinal slot 3, in which is an adjusting-slide 4, of the usual construction. This slide is, however, only used for adjusting the sight for very long ranges and within the scope of my invention may be entirely omitted, as will presently appear. At the rear end of the plate 1 is a vertically-disposed sight-frame 5, which has an opening 6, called the "globe," and at the upper side of the said frame is a forwardly-extending hood 7. A line-mark 8, here shown as a screw-needle, is secured adjustably in a threaded opening in the hood at a point coincident with the vertical center of the opening 6 and which coacts with the usual front or muzzle sight *a* when aiming the arm for a line shot, as at a stationary target and when the wind is not blowing or the conditions are otherwise such that no allowance need be made for lateral deviation of the projectile.

In the rear side of the sight-frame is a vertical recess 9, the depth of which somewhat exceeds that of the opening 6. In the said recess is detachably fitted the sight-plate 10, which may be of any suitable material and which has an opening 11 coincident with the opening 6. The sides of the opening 11 diverge upwardly and are provided within the field of the said opening with a series of serrations or notches 12, the upper sides of which are horizontal and the inner sides of which are inclined, as shown, and the points of the said notches or serrations which constitute the range-graduations of the sight, owing to their different elevations and to the upwardly-diverging sides of the opening in the field of which they are disposed, range both vertically and laterally across the field of the said opening. In practice each notch in the ascending series represents a range of one hundred yards. The sight may be provided with any desired number of the range-graduations in the sides of its opening, and I do not limit myself in this particular. Neither do I desire to limit myself to the construction of these range-graduations, as the same may be also modified without departing from the spirit of my invention.

The sight-plate 10 is detachably secured in the recess 9 by means of a screw 13.

In the operation of my improved sight when a line shot is to be taken at a stationary target when the wind is not blowing and the conditions are such that no allowance need be made for deviation in the flight of the projectile sight will be taken through the globe-opening, the muzzle-sight *a* caused to coincide with the line-mark or sight element 8, and the barrel of the piece will be so inclined as to cause one of the range-gradu-

ations to aline horizontally with the muzzle-sight, according to the distance between the marksman and the target. This is illustrated in Fig. 6, the range being, say, three hundred yards.

When firing at a moving target, the muzzle-sight must be brought in line with the point of the range-graduation 12, which in this instance will also constitute a lateral mark to compensate for the speed with which the target may be moving, the aim in this instance being directly at the target to all appearances—that is to say, the muzzle-sight being brought to bear directly on the target instead of in advance thereof, as has heretofore been necessary in sights of this class. Hence the marksman when firing at a moving target is enabled to aim directly at the same instead of being required to aim in advance thereof, as heretofore. The range-graduations, which are also the lateral marks, as heretofore indicated, also enable the arm to be aimed directly at the target when the wind is blowing, the deviation or deflection of the projectile by the force of the wind being compensated for in the direction of the arm and the sighting thereof, thus enabling the sight to be taken directly at the target instead of to one side thereof, as has been heretofore required.

For aiming or sighting in all ordinary ranges no adjustment whatever of my improved sight is necessary; but when the range exceeds that for which provision has been made by the graduations or notches 12 the adjusting-slide 4 must be used to elevate the sight to the required extent.

The hood 7 is useful in shading the globe or sight-opening to exclude the direct rays of the sun.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A rear sight comprising a relatively fixed base, and an element in and removable therefrom, said element having an opening and range-graduations in the sides thereof disposed in upwardly-diverging lines, substantially as described.

2. A rear sight having an opening and a plurality of upwardly-diverging range-graduations in the field thereof, substantially as described.

3. A rear sight having a line-mark, an opening, and a plurality of upwardly-diverging graduations in the field and plane thereof, substantially as described.

4. A rear sight having an opening and serrated range-graduations in the sides thereof, having their points disposed in upwardly-diverging lines, substantially as described.

5. A rear sight having an opening, vertical and lateral range-graduations in the field thereof, and a vertically-adjustable line element in combination with a muzzle-sight, substantially as described.

6. A rear sight having an opening and vertically and laterally ranged graduations in the field thereof, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

HERBERT B. ANDRUS.

Witnesses:
R. A. SULLIVAN,
J. H. GILBERT.