

No. 719,011.

PATENTED JAN. 27, 1903.

A. KENNEDY.
RANGE FINDER.

APPLICATION FILED MAR. 26, 1902.

NO MODEL.

Fig. 1.

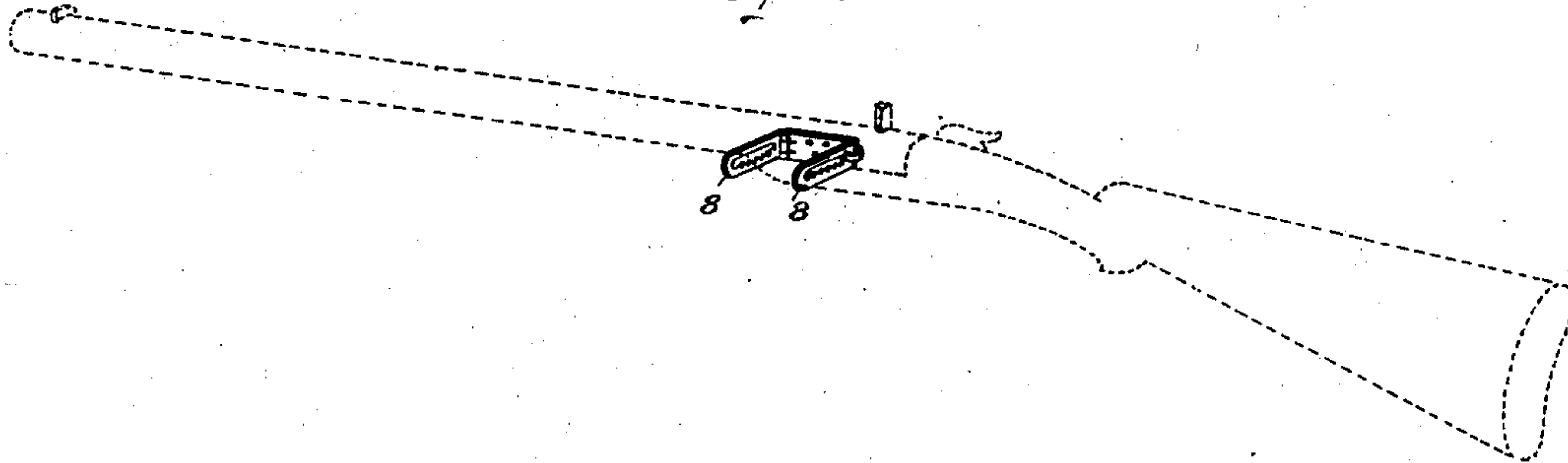


Fig. 2.

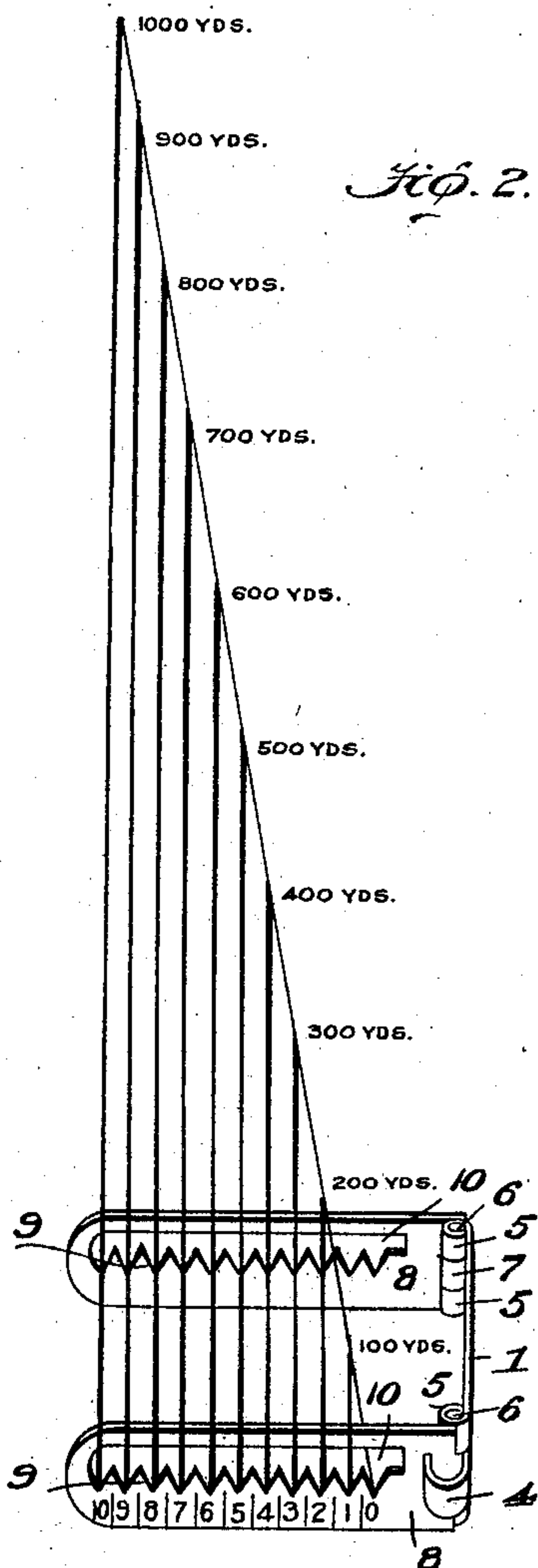


Fig. 3.

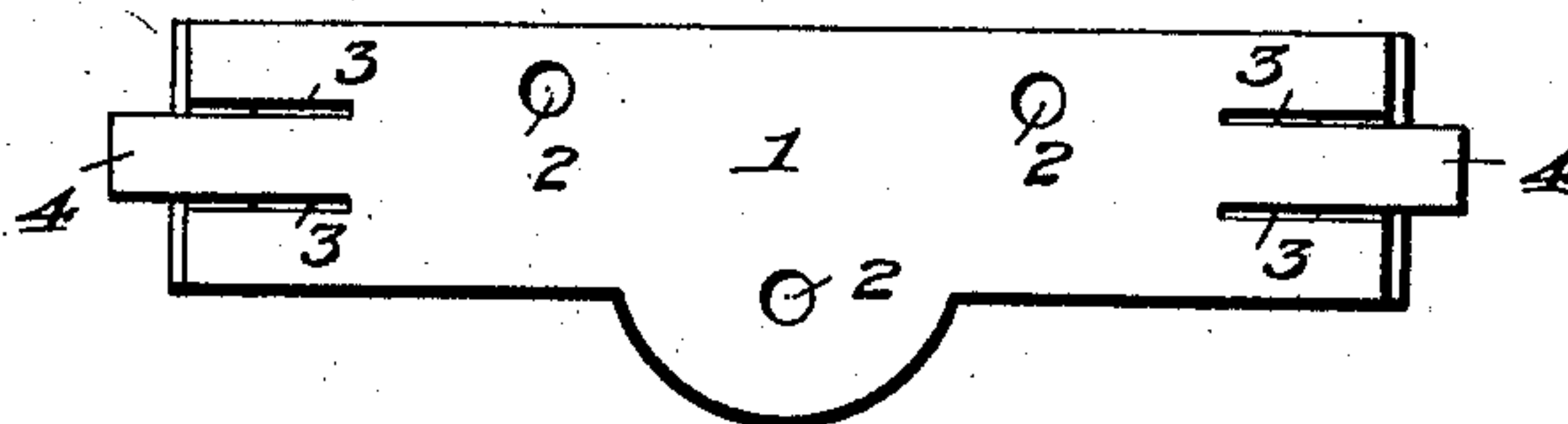
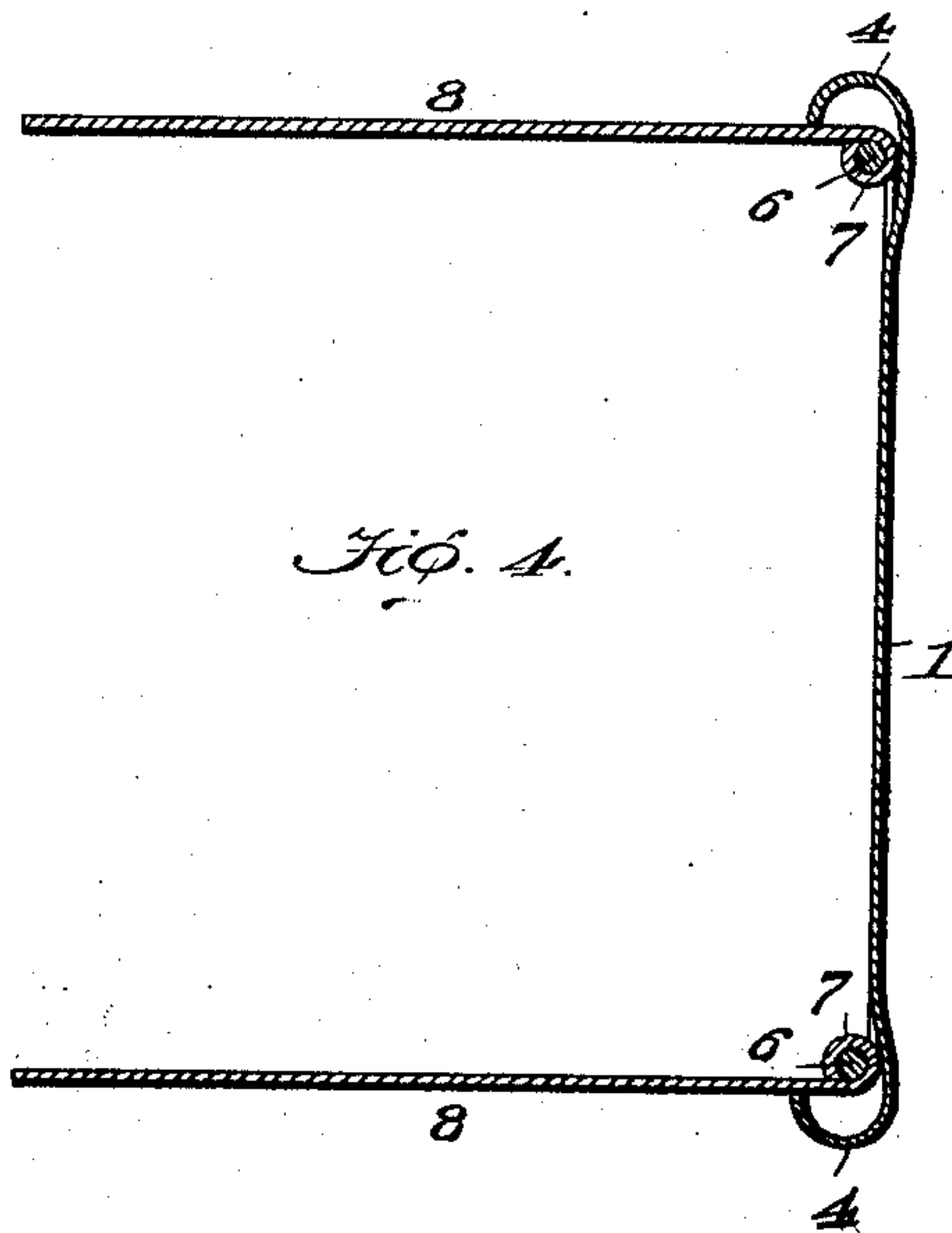


Fig. 4.



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UNITED STATES PATENT OFFICE.

ALEXANDER KENNEDY, OF PONOKA, CANADA.

RANGE-FINDER.

SPECIFICATION forming part of Letters Patent No. 719,011, dated January 27, 1903.

Application filed March 26, 1902. Serial No. 100,073. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER KENNEDY, a subject of the King of Great Britain, residing at Ponoka, in the Province of Alberta, North-West Territories, Canada, have invented new and useful Improvements in Range-Finders, of which the following is a specification.

This invention relates to certain new and useful improvements in range-finders; and it has for its objects, among others, to provide a simple and cheap device readily attachable to the barrel of a firearm and which requires no calculation on the part of the marksman.

My device is speedily used and perfectly reliable and correct. It will save a great amount of ammunition and almost do away with target practice, will save the lives of many soldiers who use it and will enable them to destroy many of the enemy, and will make the individual soldier independent of orders from the officers as to what distance to fire. In scouting it will become indispensable. It will enable a portion of rifle-drill now done by guesswork to be done with geometrical precision. It can be readily and quickly applied to the barrel of any gun now in use and does not interfere with the sights thereof.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the numerals of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a perspective view showing the range-finder in position on the barrel of the firearm. Fig. 2 is a diagrammatic view illustrating the manner of use. Fig. 3 is a back view of the range-finder. Fig. 4 is a substantially central longitudinal section through the same with the parts in the position in which they are shown in Figs. 1 and 2.

Like numerals of reference indicate like parts in the different views.

Referring now to the drawings, 1 designates the body portion of the range-finder, shown in this instance as being provided with a plurality of openings 2 for the reception of the means by which it is secured in position on the gun-barrel, the attaching means being of any suit-

able form adapted to the purpose. This body portion is provided near each end with two parallel slits 3, as seen best in Fig. 3, forming the spring-tongues 4, one at each end, and the portions upon opposite sides of these tongues are bent or rolled to form the sockets 5 for the reception of the pintles or hinge-pins 6, which pass also through the coinciding sockets 7, formed on the adjacent ends of the wings 8, the three sockets and pin forming a hinge upon which the wing may turn.

The tongues 4 are curved, as seen best in Fig. 4, and bear with their free ends upon the outer faces of the wings, as shown in said view, and serve to hold the same with a spring tension, so as to hold them in any position into which they are turned, but are primarily for the purpose of stopping the wings when they assume a position that is at right angles to the body portion and prevent their going any farther, so they will be held in parallel relation, as seen in Figs. 1, 2, and 4.

The wings 8 are provided each with a plurality of notches 9, in this instance shown as ten in number; but it is evident that this number may be varied as may be desired. These notches are formed along one side of the slots 10, which extend lengthwise of the wings, and in the present instance the thousand yards, as indicated in Fig. 2, is on a scale of five inches. Supposing or imagining a triangle the perpendicular of which is one thousand yards long and an inch and a quarter at one end and nothing at the other, the inch-and-a-quarter end being divided into ten equal parts, then lines drawn from these ten divisions, which in this instance are the ten notches 9, parallel with the outside line of the triangle would divide the other side or hypotenuse of the thousand-yard triangle into ten equal parts of one hundred yards each. The notches are merely a portion of these bisecting lines and cut the angle line or line of fire into ten equal parts. This will be clearly understood upon reference to Fig. 2. This will be found most accurate and reliable, and with a little practice it will become very efficient in the hands of an expert. It requires no calculation.

In practice the finder is applied to the left-hand side of the rifle-barrel, where it will not interfere with the elevation-sights. The de-

vice being in position as shown and the wings arranged parallel to each other, the notch at the right on the wing nearest the eye and its opposite notch in the other wing is alined with the object of which the range is desired. Holding them alined with the object, the eye is passed along the other notches until two opposite notches come in exact line with the object and the hypotenuse of the triangle. The figures below these two notches will be the number of yards in hundreds that the object is away.

From the foregoing it will be seen that I have devised a simple and cheap yet most efficient form of range-finder, and while the structural embodiment of my invention as herein disclosed is what I at the present time considered the preferable one it is evident that the same is subject to variations, changes, and modifications without departing from the spirit of the invention or sacrificing any of its advantages, and I therefore do not wish to be restricted to the details herein shown, but reserve the right to make such changes, variations, and modifications as come properly within the scope of the protection prayed.

It will be observed that the back hinge is figured out a certain distance shorter than the first, it being a certain number of yards to the first notch.

First aline the notches marked "0" on the right-hand side of the instrument with the object the range of which it is desired to find, holding the instrument steady upon the object, then pass the eye toward the left of the instrument until the object comes in sight through two notches corresponding in number from the right of the flanges. Then the figure marked opposite those two notches is the number in hundreds of yards that the object is from the observer. For instance, if it is, say, a duck at which one is aiming, and it is one hundred yards away, it will appear opposite the notches, marked "1." If it is five hundred yards away, it will appear oppo-

site the corresponding notches marked "5." If the object does not come opposite corresponding notches, it will appear a little to one side. The corresponding notches upon which each flange must be used, then the figures marked opposite those corresponding notches will be found perfectly clear. The two corresponding notches are but a portion of a straight line that bisects the fire-line at the distance marked opposite each pair upon the flanges. Hence it will not do to look anglingly across the flanges.

What I claim as new is—

1. A range-finder embodying a body portion and wings pivotally mounted thereon and having parallel slots and notches along one side of said slots, with the notches of the two slots coincident, as set forth.

2. A range-finder having a body portion to be attached to the side of a rifle-barrel, and wings pivotally mounted on the ends of the body portion and having longitudinal slots and the said slots notched along corresponding edges, as set forth.

3. A range-finder comprising a body portion with tongues at its ends, and wings pivoted to the ends of the body portion and having notches, the said tongues serving to stop the outward movement of the wings on their pivots, as set forth.

4. A range-finder comprising a body portion with slits at its ends forming tongues and hinge-pin sockets upon opposite sides of the tongues, the tongues being curved, and wings having hinge-pin sockets held between the sockets of the body portion, the said wings having longitudinal slots notched along corresponding edges, as described.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

ALEXANDER KENNEDY.

Witnesses:

F. M. LEE,
EUGENE RHIAN.