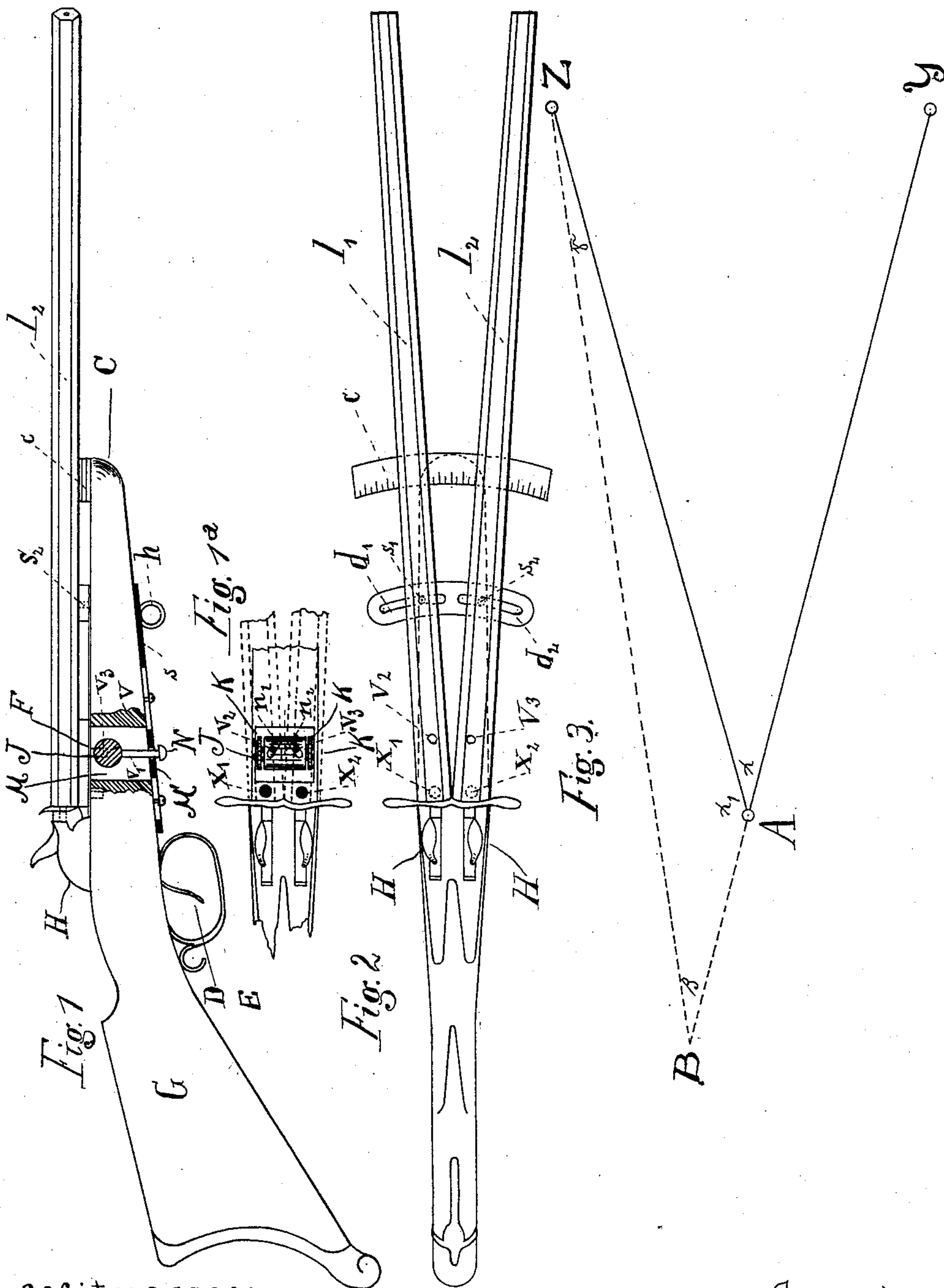


(No Model.)

A. G. B. SCURI.  
DISTANCE MEASURING INSTRUMENT.

No. 605,830.

Patented June 14, 1898.



Witnesses:

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# UNITED STATES PATENT OFFICE.

ALESSANDRO GIOVANNI BATTISTA SCURI, OF GRAVEDONA, ITALY.

## DISTANCE-MEASURING INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 605,830, dated June 14, 1898.

Application filed October 31, 1896. Serial No. 610,720. (No model.)

*To all whom it may concern:*

Be it known that I, ALESSANDRO GIOVANNI BATTISTA SCURI, a subject of the King of Italy, residing at Gravedona, Italy, have invented certain new and useful Improvements in Distance-Measuring Instruments; and I do hereby 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.

My invention relates to distance-measuring instruments, and as its applicability to use with a firearm is self-evident the device is shown in the drawings in the form of a firearm.

The following description will enable any one versed in the art to thoroughly understand and construct my invention.

In the drawings similar letters refer to similar parts.

Figure 1 is a side view of the device embodying my invention and having part of the stock cut away. Fig. 1<sup>a</sup> is a top view of the actuating-drum and shows the barrels in dotted lines. Fig. 2 is a top view of the construction in Fig. 1. Fig. 3 is a diagram illustrating the manner of determining the unknown distance.

In the instrument, which is in the form of a gun, G is the stock, provided in the ordinary manner with a trigger-guard E, trigger D, and hammers H H. Engaging said stock and pivotally connected thereto at the breech end by pivots  $x' x^2$  are barrels  $l' l^2$ . In the stock G, under the breech end of the said barrels, is an open chamber M, having a horizontally-extending slot M' in the bottom thereof. Journaled in the sides of the said chamber M is a shaft having mounted thereon a drum J. The said drum J has angular V-shaped slots  $n' n^2$  therein, with the apex projecting in the direction of the muzzle of the aforesaid barrel, which are secured at either side of said drum J, and mounted on said shaft is a lever V', which extends downwardly through the aforesaid slot M', and has on its lower end a button or handle N. Secured to the under side of the barrels  $l' l^2$  are downwardly-projecting pins  $V^2 V^3$ , which pass through the top of said chamber M and enter the said slots  $n' n^2$ .

Forward of the chamber M is an annularly-

extending recess formed in the upper surface of the stock, and adjacent to the under surface of the barrels  $l' l^2$ , mounted in this recess, is a segmentally-formed slider or guide-arm S', which is provided with slots  $d' d^2$ , in which pins  $s' s^2$ , secured to the lower surfaces of said barrels, are adapted to work. At the forward end of the stock and similarly secured thereto as the slider is a segmentally-formed scale C, which, as may be readily seen, will aid the operator in exactly determining the distance of the required object—as, for example, in Fig. 3, let Z be the object and A the position of the operator to ascertain the distance A Z. First he sights one barrel at Z, and moving the other, as will be hereinafter more fully described, he sights some other object, as B, measuring the angle Z A B or angle  $x'$ . Next he takes the position at B and takes a sight from that point to both Z and A, measuring the angle Z B A or  $b$ . Y is a rear sight point. Having determined the side A B and angles  $x' b$ , which are measured by the scale C, secured to the firearm, he can readily determine the distance Z A by a simple formula of trigonometry.

The mechanical movement of the instrument may be readily understood from the foregoing description taken in connection with the accompanying drawings. To adjust the barrel, one finger is put in the ring  $h$ , secured to the under surface of the stock and near its forward end, while with the other hand supporting the instrument in the same position as aiming the firearm the forefinger may be pressed against the button or handle. N will readily rotate the drum J, guiding the pins  $V^2 V^3$  in the grooves thereof, and thus either drawing the barrels one toward the other or forcing them apart.

Having now fully described my invention, what I claim as new, and wish to protect by Letters Patent, is—

1. As a new article of manufacture, a distance-measuring device having a stock, a chamber therein provided with a horizontally-extending slot, a shaft in said chamber, a drum having an angular slot therein mounted on said shaft, a lever adapted to rotate said drum, barrels pivotally secured to said stock, pins on the under side of said barrels entering said drum-slots, and means for determin-



ing the angular opening of said barrels; all of the said parts being combined substantially as and for the said purpose described.

2. A distance-measuring instrument having a stock provided near its forward end with a chamber having a horizontally-extending slot in the bottom part thereof, a shaft mounted in said chamber, a drum mounted on said shaft provided with an angular V-shaped slot, a lever rotatably actuating said shaft and drum and extending downwardly through said slot in the bottom of said chamber, a button on the end of said lever; pins on the underside of said barrels entering said angular slot, annularly-extending angular recesses in the upper surface of said stock near the central and forward end respectively thereof, a segmentally-curved slider in the centrally-located recess, said slider being provided with slots therein; other pins on the under surface of said barrels adapted to enter said slots, and a segmentally-formed scale in the remaining said angular recess, all of the said parts being combined as and for the purpose as described.

3. As a new article of manufacture a distance-measuring instrument having a stock pivotally secured thereto, barrels, pins on the

under side of said barrels; said stock having a chamber therein under said pins, a shaft mounted in said chamber, a drum on said shaft having an angular V-shaped slot therein adapted to receive the aforesaid pins, means for rotatably actuating said drum, a lever on the under side of said stock near its forward end, annularly-extending recesses in the upper surface of said stock and a guide-arm and a scale respectively secured therein; all of the said parts being combined substantially as described.

4. As a new article of manufacture a distance-measuring instrument, barrels pivotally secured thereto, pins on the under surface of said barrels adapted to move in annular grooves in the upper surface of the stock, means for actuating said pins and a scale adapted to measure the angle included by said barrels, all of the said parts being combined substantially as and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

ALESSANDRO GIOVANNI BATTISTA SCURI.

Witnesses:

J. F. MONAGHAN,

A. MOLAMA.