No. 722,910. PATENTED MAR. 17, 1903.

G. N. SAEGMULLER.

GUN SIGHT TELESCOPE.

APPLICATION FILED DEC. 8, 1902.

NO MODEL.

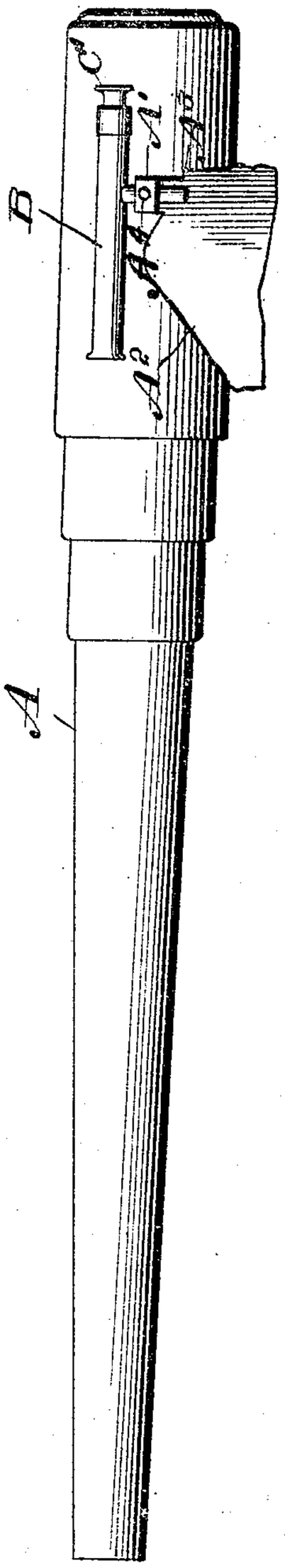

Fig. 1.

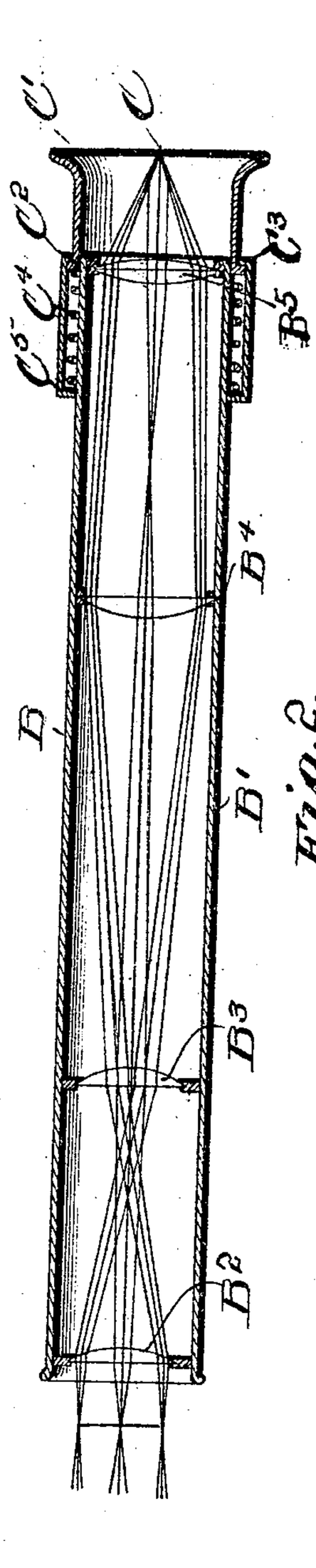

Fig. 2.

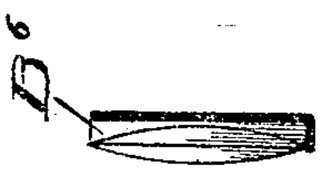

Fig. 4.

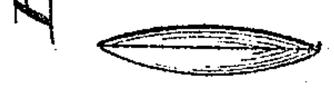

Fig. 3.

WITNESSES:

W. F. Doyle.

Alfred I. Gage

INVENTOR

George N. Saegmuller.

BY E. B. Stocking

Attorney

UNITED STATES PATENT OFFICE.

GEORGE N. SAEGMULLER, OF WASHINGTON, DISTRICT OF COLUMBIA.

GUN-SIGHT TELESCOPE.

SPECIFICATION forming part of Letters Patent No. 722,910, dated March 17, 1903.

Application filed December 8, 1902. Serial No. 134,339. (No model.)

To all whom it may concern:

Be it known that I, GEORGE N. SAEGMULLER, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Gun-Sight Telescopes, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a gun-sight telescope, and particularly to one adapted to be applied to a piece of ordnance.

The invention has for an object to improve the construction of the instrument by the use of an enlarged eye-lens which will throw the image at a point removed from the lens, so as to permit a vibration thereof in the firing of the gun, and therefore prevent a disarrangement of the parts or injury thereto, while permitting its use in the recoil of a gun without injury to a person making the observation therethrough.

A further object of the invention is to mount a shield or protector so that it may reciprocate in the recoil of a gun and be immediately restored to its initial and proper position.

Other and further objects and advantages of the invention will be hereinafter set forth, and the novel features thereof defined by the appended claims.

In the drawings, Figure 1 is an elevation showing the telescope applied to a piece of ordnance; Fig. 2, an enlarged longitudinal section of the telescope; Fig. 3, a side elevation of a biconvex eye-lens, and Fig. 4 a similar view of an achromatic lens.

Like letters of reference refer to like parts in the several figures of the drawings.

The invention is intended for use in any desired position, but is illustrated in Fig. 1 as applied to a piece of ordnance (indicated at A) to which it is particularly applicable. In this figure a bracket A′ is disposed at one side of the carriage A^2 of the gun and the telescope B supported therein by any suitable form of standard A^3 and securing device A^4.

The telescope B is provided with the usual casing B′, which may be formed of telescopic sections or otherwise as found desirable, and is provided at its outer end with a plano-convex field-lens B^2 and between its ends with suitable lenses B^3 and B^4 of a similar character for erecting the image and conveying the rays of light, as indicated by diagram in Fig. 2. At the opposite end of the instrument from the field-lens an eye-lens B^5 is provided and is of much larger size than that ordinarily used in telescopes of this character, the object thereof being to project the image at a point removed from the lens, as indicated at C, while extending from the eye-lens to this focusing-point C is a protector or shield C′ of any desired character, preferably formed of elastic material, so as to permit a vibration of the instrument during the recoil from the piece of ordnance fired without injury to the observer. This eye-lens B^5 is shown by detail in Fig. 3 as a biconvex lens having its faces of different radii, according to the length of the eyepiece used to project the image to the open end of the eyepiece. The invention, however, is not confined to this particular construction of eye-lens nor to any specific arrangement of the other lenses used in the instrument, as an achromatic lens (shown at B^6 in Fig. 4) may be used to correct spherical and achromatic aberration.

For the purpose of permitting a vibration of the protector or shield, thus maintaining it in proper relation to the eye of the operator during the firing of a gun, this shield is mounted on a sliding frame or ring C^2, normally held against a stop C^3 at the end of the instrument by means of a coiled spring C^4, extending from the frame C^2 to a fixed shoulder C^5 upon the casing B′, thus normally holding the shield in correct position, while the recoil of the gun produces a longitudinal vibration in the instrument, causing the shield to compress the spring and travel in a path through which the light-rays travel in substantially parallel planes, thus not affecting the relation of the position of the operator to the other parts of the instrument during this momentary vibration.

The invention may be applied to any desired character of telescope and also to any piece of ordnance or similar apparatus in which it is desired to project the image at a point beyond the eye-lens and at the open end of an extended protector, thus permitting the vibration of the parts without injury thereto or to the operator using the same.

Having described my invention and set

forth its merits, what I claim, and desire to secure by Letters Patent, is—

1. In a telescope, a casing provided with field and erecting lenses, a fixed eye-lens mounted within said casing, and a yieldingly-mounted protector movable relative to said eye-lens; substantially as specified.

2. In a telescope, a relatively fixed casing carrying field and erecting lenses, an extended yieldingly-movable protector at one end of said casing, and an enlarged eye-lens fixedly disposed in said casing approximately at the base of said protector and adapted to project an image to the outer edge thereof; substantially as specified.

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

GEORGE N. SAEGMULLER.

Witnesses:
ALFRED T. GAGE,
HARRY C. ROBB.