No. 841,262. PATENTED JAN. 15, 1907.

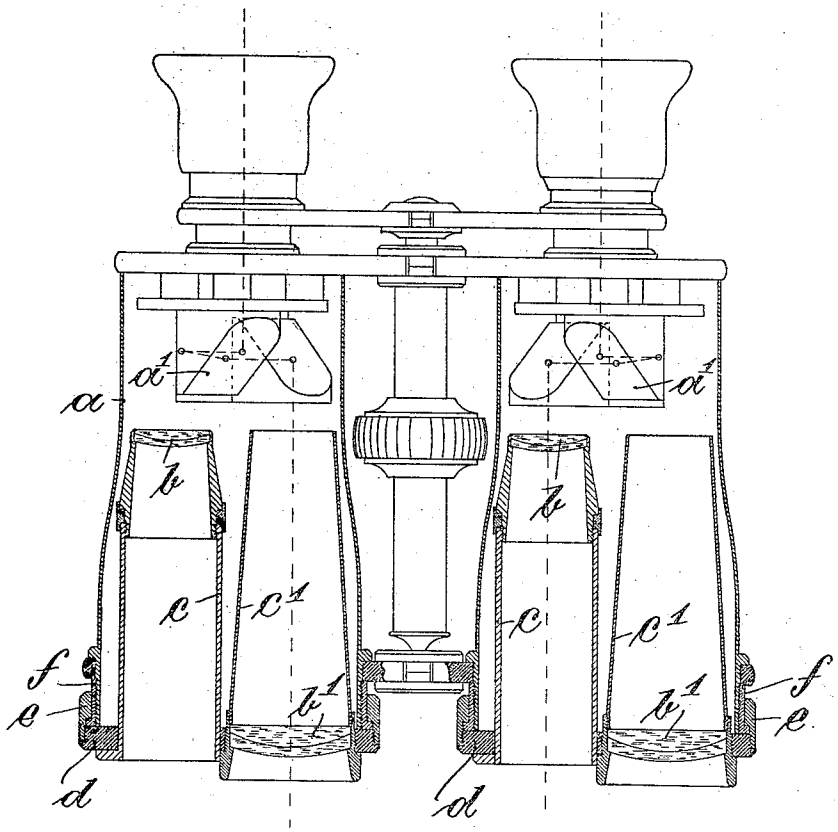
K. MARTIN.

PRISM TELESCOPE.

APPLICATION FILED JAN. 2, 1906.

2 SHEETS—SHEET 1.

Fig. 1.



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2 SHEETS—SHEET 2.

Fig. 2.

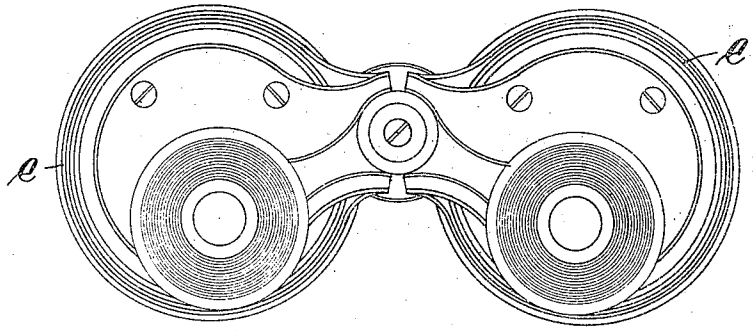
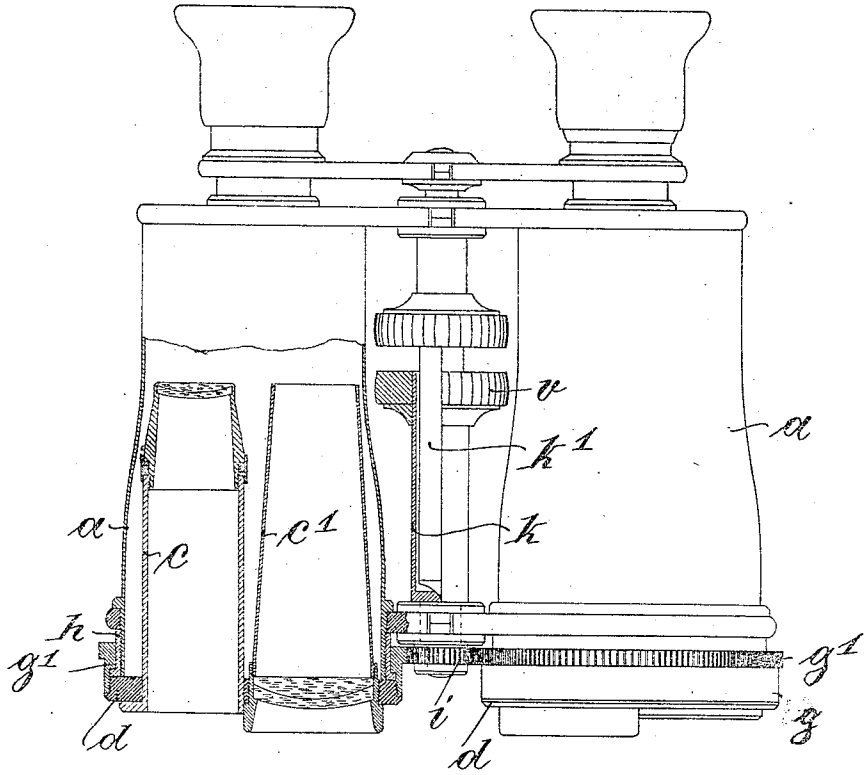


Fig. 3.



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UNITED STATES PATENT OFFICE.

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PRISM-TELESCOPE.

No. 841,282. Specification of Letters Patent. Patented Jan. 15, 1907.

Application filed January 2, 1906. Serial No. 294,268.

To all whom it may concern:

Be it known that I, KARL MARTIN, a subject of the King of Prussia, German Emperor, and a resident of Rathenow, in the Kingdom of Prussia, German Empire, have invented certain new and useful Improvements in Prism-Telescopes, of which the following is an exact specification.

This invention relates to prismatic telescopes, and more especially to binocular telescopes, with means for varying the power.

Binocular telescopes provided with four interchangeable oculars as heretofore made have the great defect of causing the article to be inconveniently large and cumbersome in use.

To avoid these drawbacks, this invention provides a prismatic telescope in which several object-lenses having different focal range are arranged to vary the power and are made capable of being adjusted by convenient means, as hereinafter described.

In order to make this invention clear, I refer to the accompanying drawings, in which—

Figure 1 represents a binocular glass according to my invention, partly in section and partly in side view. Fig. 2 is a plan view, and Fig. 3 shows a convenient constructional form permitting the object-lenses to be adjusted simultaneously.

In the drawings, *a* is a case receiving the prisms *a'* and the interchangeable object-lenses *b b b' b'*, *b b* having a short focal range and *b' b'* a great focal range. The lenses *b b b' b'* are arranged within tubes *c* and *c'*, respectively, the tubes being situated eccentrically on and secured to the end plates *d d*. For the purpose of adjusting the lenses the annular end plate *d* is capable of being rotated by means of the ring *e*, which is of larger inside diameter at its lower part and provided with a screw-thread to screw in the plate *d*. With its upper part the ring *e* rests on the flanged ring *f*, fixed to the case *a*. By this means the end plates *d*, together with the object-lenses, can be rotated independently of each other.

In Fig. 1 on the left-hand side of the telescope the object-lens having the long focal range is connected and on the right-hand side the object-lens having the short focal range.

For the purpose of simultaneously adjusting both the object-lenses *b b* and *b' b'*, respectively, the arrangement is provided as illustrated in Fig. 3. The object-lenses are here also eccentrically arranged by means of the tubes *c c'* on the annular end plate *d*, which is fixed to the ring *g*. The ring *g* on the flanged guiding-ring *h* is provided with a tooth-rim *g'*, and the ring *h* is secured to the case *a*. The tooth-rims *g'* engage with the tooth-wheel *i*, secured to the sleeve or tube *k*, which is rotatably arranged on the stem *k'* of the telescope. The device is operated by means of the wheel *v* with milled edge.

I do not limit the invention to the special constructional form described and illustrated. Also any other convenient arrangement mounting and operating the object-lenses may be considered as falling under the scope of the invention. The essential feature of the invention consists in arranging several object-lenses having different focal distances to vary the power of the telescope.

Having thus fully described the nature of my invention, what I desire to secure by Letters Patent of the United States is—

1. A prismatic telescope, comprising in combination: a telescope-tube, object-lenses having different focal range, tubes for mounting therein the object-lenses, a plate carrying the tubes for adjusting the object-lenses, and a prism for the purpose as described.

2. A binocular prism-telescope, comprising in combination: telescope-tubes, object-lenses having different focal ranges, tubes for mounting therein the object-lenses, a plate in each telescope-tube carrying said tubes for the purpose of adjusting the object-lenses, and prisms in said telescope-tubes.

3. A binocular prism-telescope, comprising in combination: object-lenses having different focal ranges, tubes for mounting therein the object-lenses, a plate in each telescope-tube carrying said tubes, a toothed boss for each telescope-tube in connection with said plates, a toothed wheel *i* intermeshing with said toothed rims, a stem *k* carrying said toothed wheel and a knurled wheel *v* mounted on said stem for operating the toothed rims and the tubes.

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

KARL MARTIN.

Witnesses:

WOLDEMAR HAUPT,

HENRY HASPER.