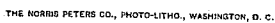


P. MOEWS.
OPERA GLASS ATTACHMENT.

Patented May 24, 1892.



UNITED STATES PATENT OFFICE.

PAUL MOEWS, OF NEWARK, NEW JERSEY, ASSIGNOR TO JOHN S. SPENCER,
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OPERA-GLASS ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 475,462, dated May 24, 1892.

Application filed February 29, 1892. Serial No. 423,134. (No model.)

To all whom it may concern:

Be it known that I, PAUL MOEWS, a citizen of the United States, and a resident of Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Opera-Glass Attachments, of which the following is a specification.

The invention relates to improvements in opera-glass attachments; and it consists in a novel holder and means connecting it with the revoluble cylinder of the glasses, whereby upon the axial revolution of the holder said cylinder will be rotated and the focus of the glasses thus adjusted.

The glasses to which my invention are especially applicable consist of longitudinal telescopic barrels carrying the lenses and connected by cross-bars, which support between said barrels the revoluble cylinder having a thumb-piece and the interior threaded cylinder or stem, which has imparted to it a reciprocating movement on the exterior or revoluble cylinder being rotated.

The object of my invention is to furnish a suitable holder, preferably telescopic and folding, which may be used as a support for the glasses when in use and as a means for rotating the revoluble cylinder of the screw-adjusting mechanism thereof.

The nature, purposes, and scope of the invention will be more fully understood from the detailed description hereinafter presented, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation, partly in section, of an opera-glass and holder constructed in accordance with the invention, the section being on the line 1 1 of Fig. 2, and the folded position of the holder being indicated by dotted lines. Fig. 2 is a front view of same, the holder being shown in its extended position. Fig. 3 is an enlarged front view of the upper end of the holder and adjoining portion of the opera-glass frame. Fig. 4 is a central vertical longitudinal section of same on the dotted line 4 4 of Fig. 3, and Fig. 5 is a central vertical section through the upper end of the folding handle and showing the spring for locking the handle in its open or closed positions.

In the drawings, A B designate the telescopic barrels of the opera-glasses, said barrels carrying the usual lenses and being connected by the customary transverse bars C D E, the latter of which may be termed the "front cross-bar." Between the barrels A B, and supported by said transverse bars, is the usual internally-threaded revoluble cylinder F, having the thumb-piece G and the externally-threaded stem H, which is adapted to have a longitudinal reciprocation within the cylinder F when the latter is revolved to adjust the focus of the lenses.

The opera-glass shown is one of well-known form and construction and is illustrated for the purpose of clearly presenting the invention sought to be protected.

The preferred form of the holder is telescopic and folding, and, as shown, consists of the telescopic sections I, the upper of which has the hinged joint J and a locking-spring K, by which the holder may be held in either its open or folded position. The holder at its upper end is reduced to a stem, (shown by dotted lines in Fig. 4,) which is inclosed by the sleeve L of the bracket M, fastened to the front cross-bar E. The purpose of the bracket M is simply to support the holder and permit its axial revolution and hence it may be of any convenient form. The front end of the revoluble cylinder F and the upper end of the holder are directly connected by mechanism or gearing through which a revolving motion in the handle may be imparted to the said cylinder, and the focus of the glasses thereby adjusted. This mechanism connecting the front end of the cylinder F with the upper end of the holder will consist, in the preferred form, of the universal joints N O, the latter being formed in part by the bifurcated arms P on the upper extremity of the holder, and the former being formed in part by the bifurcated arms Q on the outer end of the stud R, which passes within the front end of the cylinder F, and is thereto rigidly secured by a screw S. Upon the holder being rotated axially its movement will, through the universal joints N O and stud R, be transmitted to the revoluble cylinder F, with the result that the focus of the lenses may be adjusted at

will. The attachment of the handle does not prevent the adjustment of the focus from the thumb-piece G, but presents an additional means of adjustment, which may be brought into use while the glasses are held to the eyes and without raising the arm.

While I prefer the telescopic form of holder or handle, I do not confine the invention thereto in every instance, since if the handle shown were in a single piece of appropriate length and connected with the front end of the screw-cylinder F it would still present some of the important features of the invention. Neither do I limit the invention to the specific universal joints N O as means for connecting the upper end of the handle or holder with the front end of the cylinder F. Said universal joints will be found to be very satisfactory for the purpose, however, and are very desirable on account of their reliability, durability, and neatness of appearance.

When the holder or handle is made of telescopic sections, it is desirable that the sections be prevented from turning one within the other either by giving the upper section a polygonal form in cross-section or by adopting any of the various constructions used by manufacturers of gold and silver pencil-cases for preventing the telescopic sections from turning one within the other without retarding their longitudinal movement.

When the opera-glasses are in use, the holder should be given a vertical position, as shown in Fig. 2, and when the same is not in use said handle may be folded upward between the barrels A B, as illustrated by dotted lines in Fig. 1. The spring-pawl K, entering the notches T at the extreme positions of the holder, serves to lock the latter either open or folded. The spring-pawl K is within the upper end of the handle and immediately below the hinge J, and said pawl has the slot *a* to receive the rigid transverse guide-pin *b*. The pawl K is given an upward tension by reason of the compression of the coiled spring

d, held in place by the plug *e*. During the folding or unfolding of the handle the pawl K springs into the notches T, and thereby temporarily locks the handle in the position desired.

By applying the holder to the front cross-bar E the mechanism connecting the upper end of the holder to the front end of the revoluble screw-cylinder is removed from the end of the glasses coming next to the face, and the holder itself is conveniently removed from the body of the person using the glasses.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The opera-glass and the revoluble adjusting-cylinder thereof, combined with the axially-revoluble holder and a revoluble connection secured at one end to the upper end of said holder and at the other end locked to the front end of said revoluble adjusting-cylinder, substantially as and for the purposes set forth.

2. The opera-glass and the focus-adjusting mechanism thereof, combined with the axially-revoluble holder applied to the cross-bar thereof, the hinged joint J in said holder, the notches T, formed in one section of said hinge, the pawl K within said holder, the spring *d*, also within the holder and engaging said pawl, and a revoluble connection between the upper end of said holder and said adjusting mechanism of the glass, substantially as and for the purposes set forth.

3. The opera-glass having the revoluble screw-cylinder, combined with the holder and the universal-joint connection between said holder and said screw-cylinder, substantially as and for the purposes set forth.

Signed at New York, in the county of New York and State of New York, this 24th day of February, A. D. 1892.

PAUL MOEWS.

Witnesses:

CHAS. C. GILL,
ED. D. MILLER.