

## **Am improvements in ophthalmoscopes / [Arthur William Down].**

### **Contributors**

Down, Arthur William.  
Down, Hubert Vincent  
Ferrier, Richard Henry  
Mozley-Stark, A.

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Wellcome Collection  
183 Euston Road  
London NW1 2BE UK  
T +44 (0)20 7611 8722  
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COMPLETE SPECIFICATION.

An Improvement in Ophthalmoscopes.

We ARTHUR WILLIAM DOWN and HUBERT VINCENT DOWN both of Nos. 5 & 7 St. Thomas's Street Borough in the County of London trading together in partnership as Surgical Instrument Manufacturers under the style or firm of "Down Bros.," and RICHARD HENRY FERRIER of 56 Beresford Street  
5 Walworth in the County of London aforesaid Optical Instrument Maker do hereby declare the nature of this invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

The invention is an improvement upon what is known as Morton's ophthalmoscope and consists in the novel form of link lens holder. It is constructed to hold the lens and for the additional and novel purpose of indicating the power of a lens thus dispensing with time wheels or other means of shewing the power of a lens when presented at the sight aperture thereby reducing the number of working parts in an ophthalmoscope and rendering the instrument less liable to get out of  
15 order, and is accomplished as set forth in the following description and drawing accompanying this Specification:—

In the drawing,

Figure 1 is a plan of the tray links and driving wheel of an ophthalmoscope the tray back or upper surface plate is removed to show the links in position.  
20 The links are represented by thirty circles and are not attached to each other but work freely between the two surface plates. They are guided in their course by the link race E, E. The large circle D. is a milled wheel fixed to a small steel wheel C, whereby the chain of links is set in motion. F. indicates the position in the upper surface plate of the reading aperture and G. of the sight aperture.

25 Figure 2. is a section of Figure 1. at the line A. B.—E. E. is the link race or tray with the links removed.

Figure 3. is the complete link lens holder. K. is the lens. J. the cell holding the same and H. the wing which carries the number or sign of lens power of a lens a given number in advance.

30 Figure 4. is a section of Figure 3. with lens.

A wing of metal or other suitable material is attached to each lens holder. It is so fashioned in shape as to permit of the series of lenses and wings easily travelling in the link race or tray both in a straight line or revolving in a circle and is of sufficient size for a figure, or figures, or sign or signs indicating the  
35 power of a lens to be placed upon it (see Figure 3).

The number or sign placed on the wing is that indicating the power of the lens a given number in advance so that when lens of power No. 1 occupies the position at the sight aperture (see G Figure 1) its number which is attached to a lens a few intervals from it appears at the reading aperture (see F. Figure 1).

40 The reading aperture is placed away from the sight aperture for convenience and so as not to obstruct the vision.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed we declare that what we claim is

The novel application to ophthalmoscopes of a wing attached to a revolving link lens holder to indicate the number, sign, or power of the lens in position.  
45

Dated this 21st day of March 1892.

For the Applicants,

A. MOZLEY STARK,  
62, Strand, W.C., Solicitor.

A.D. 1885

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[This Drawing is a reproduction of the Original on a reduced scale]

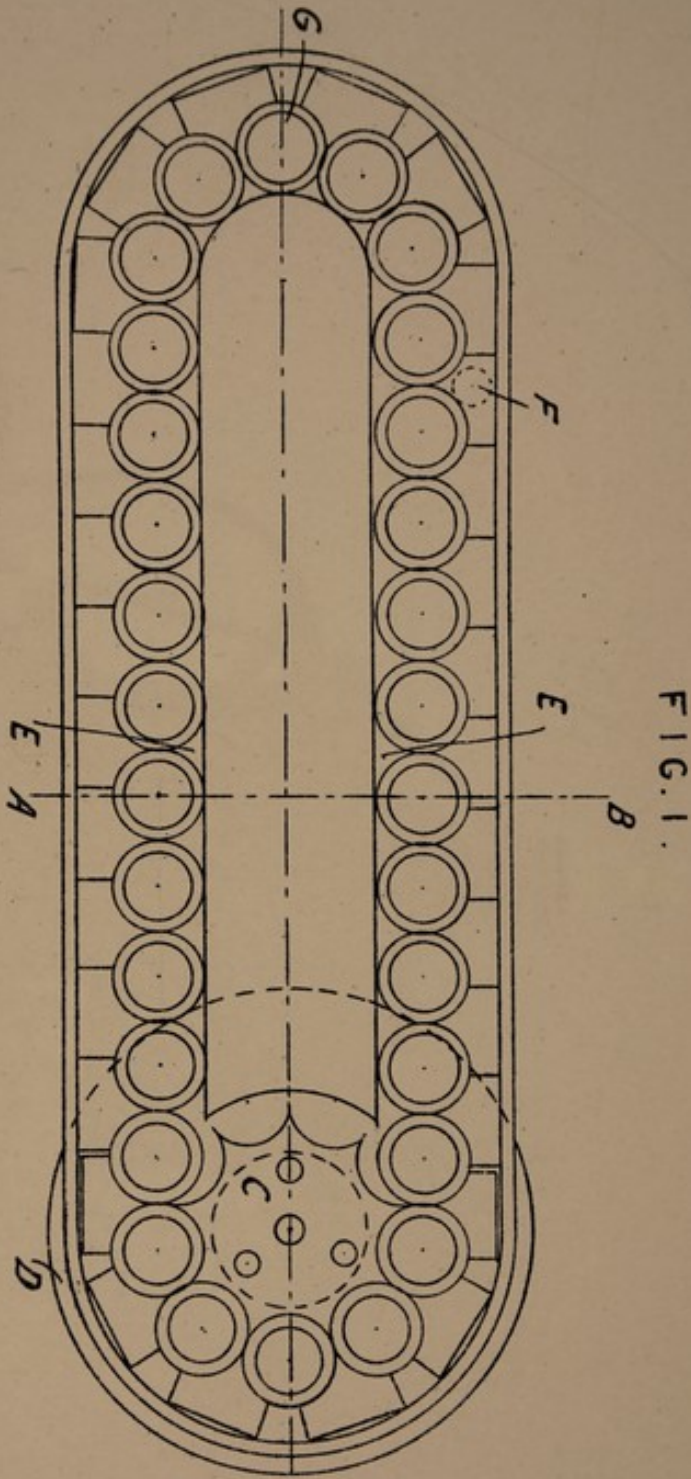


FIG. 1.

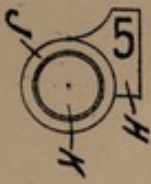


FIG. 3.

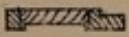


FIG. 4.

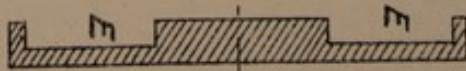


FIG. 2.

