

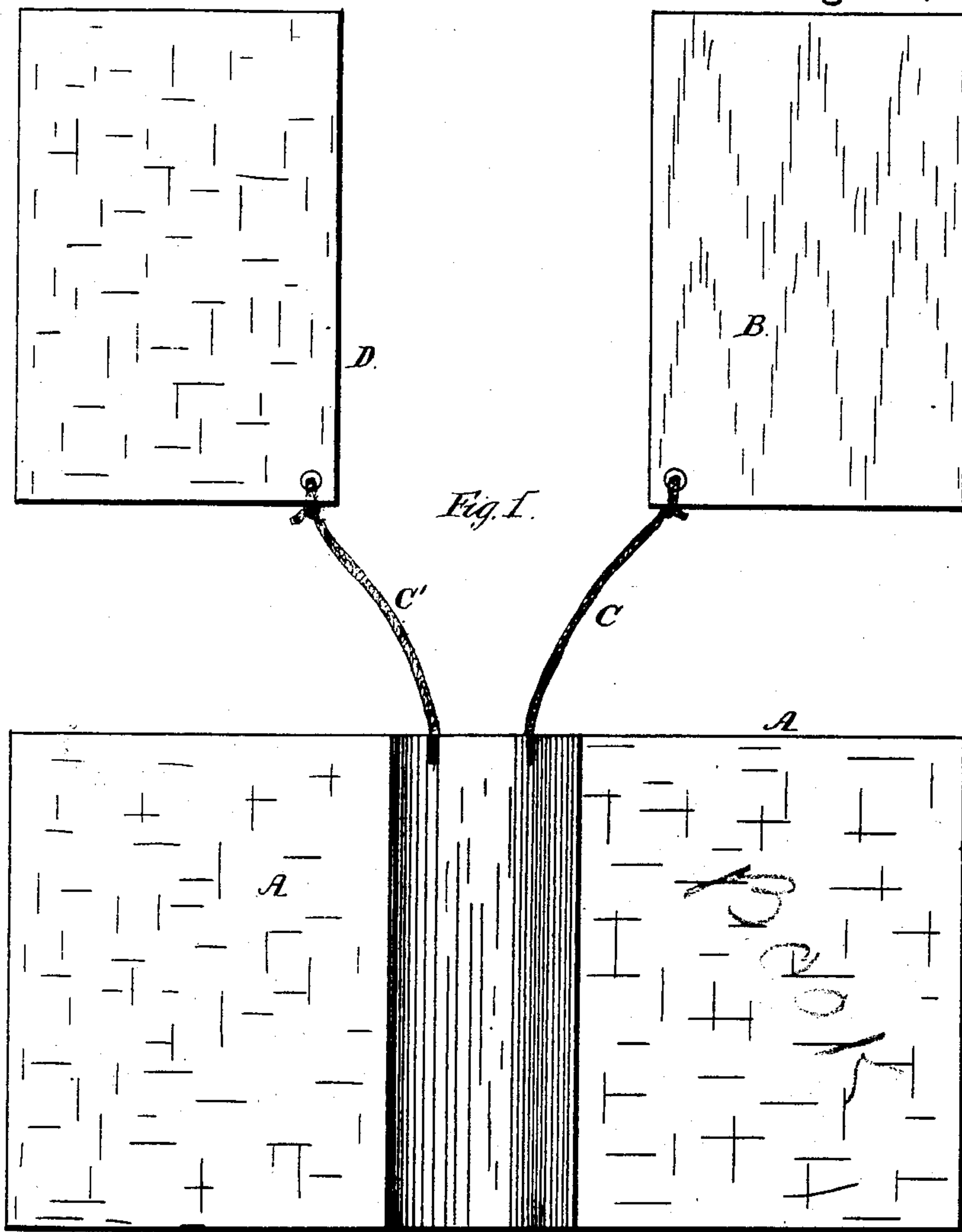
(No Model.)

2 Sheets—Sheet 1.

W. E. CLEGG.
MEANS FOR PROTECTING EYESIGHT.

No. 303,559.

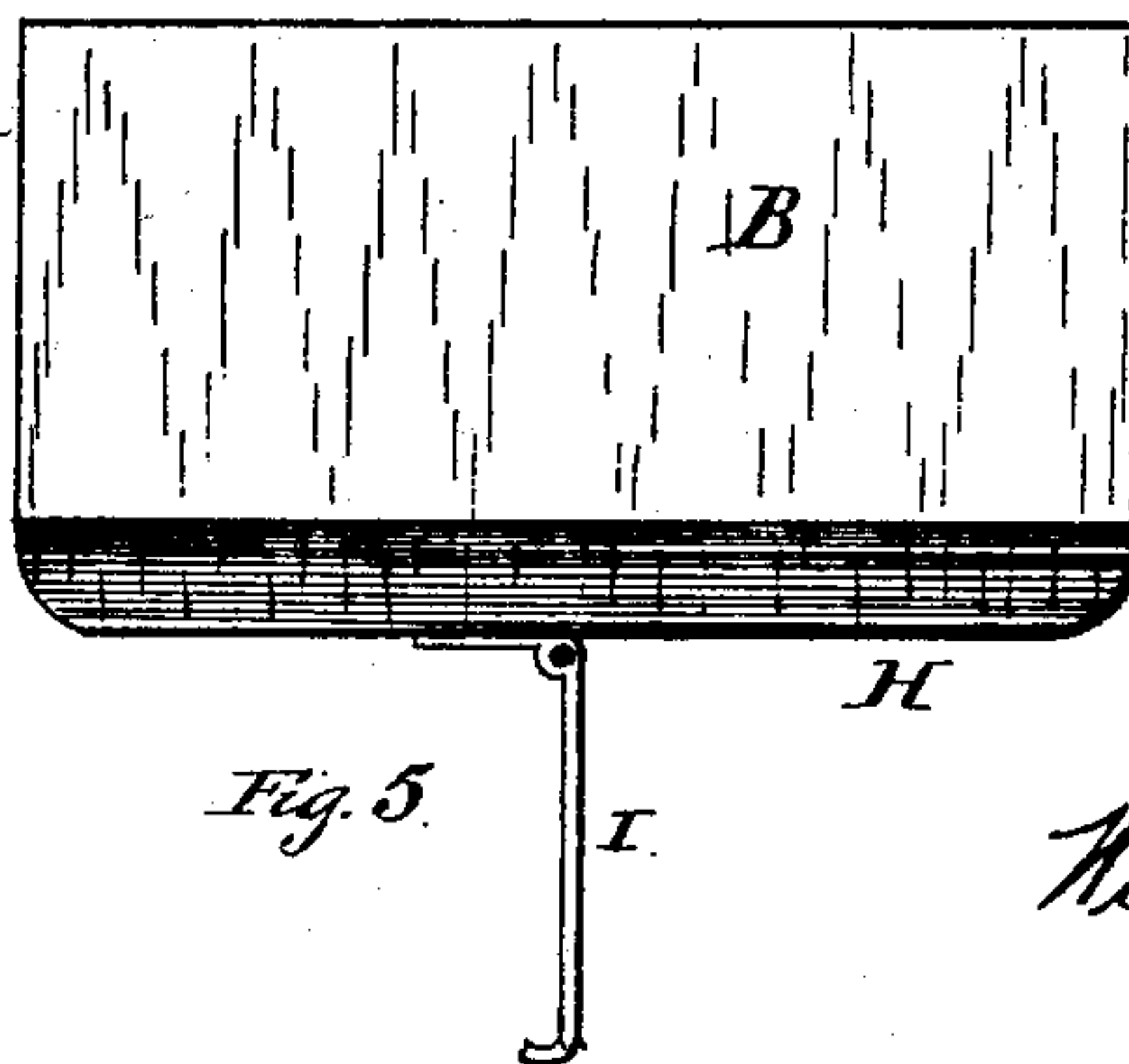
Patented Aug. 12, 1884.



The herein-described device for producing a colored tint or shade upon reading-matter printed or engrossed upon white paper, which consists of a colored transparency provided with holding devices, substantially as described, whereby the glass is secured to the page over the matter to be read.

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

Attest:
T. C. Brecht.
W. C. Chappin



Inventor
William E. Clegg.
by J. H. Snook atty.

(No Model.)

2 Sheets—Sheet 2.

W. E. CLEGG.
MEANS FOR PROTECTING EYESIGHT.

No. 303,559.

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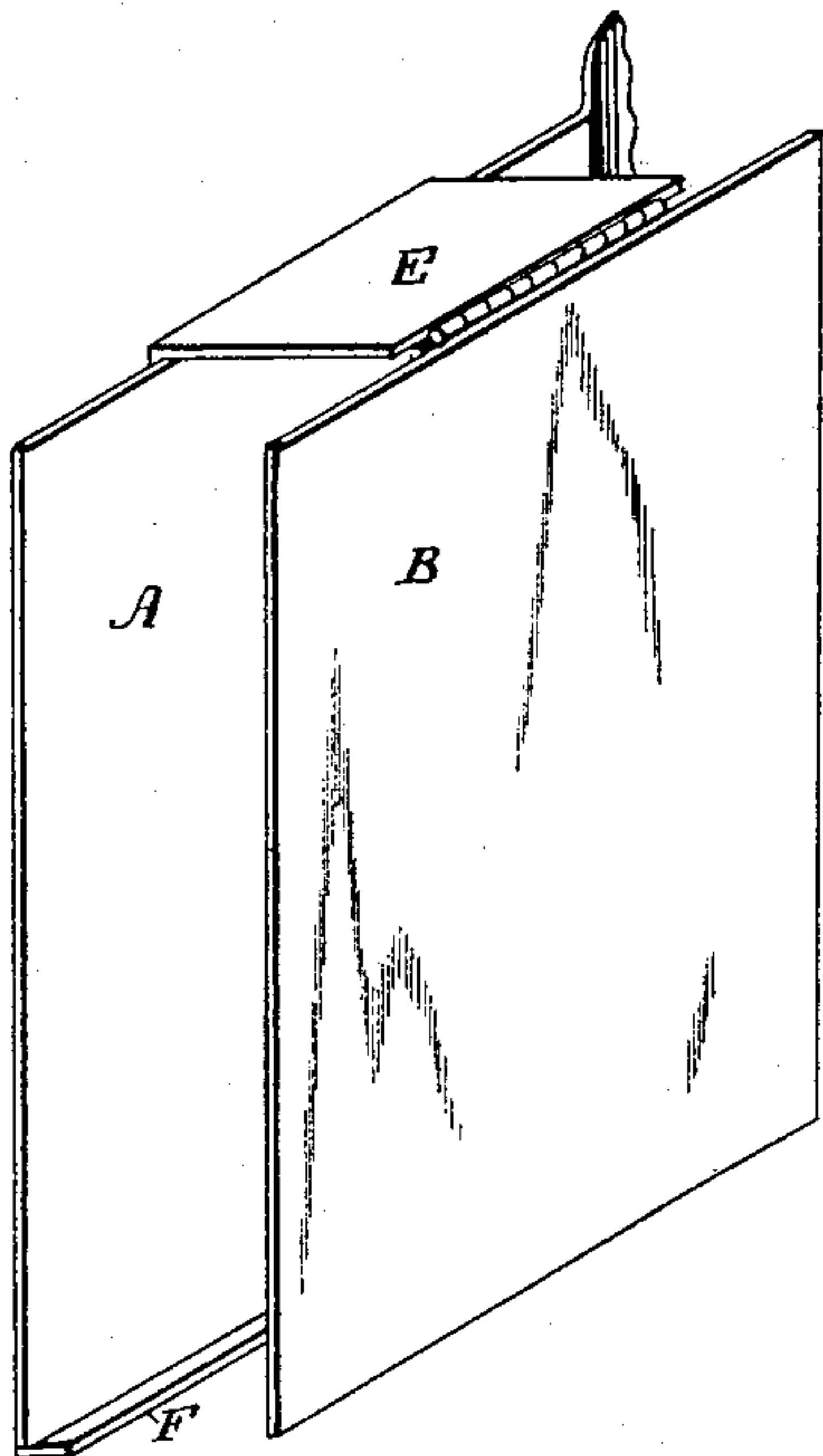


Fig. 2.

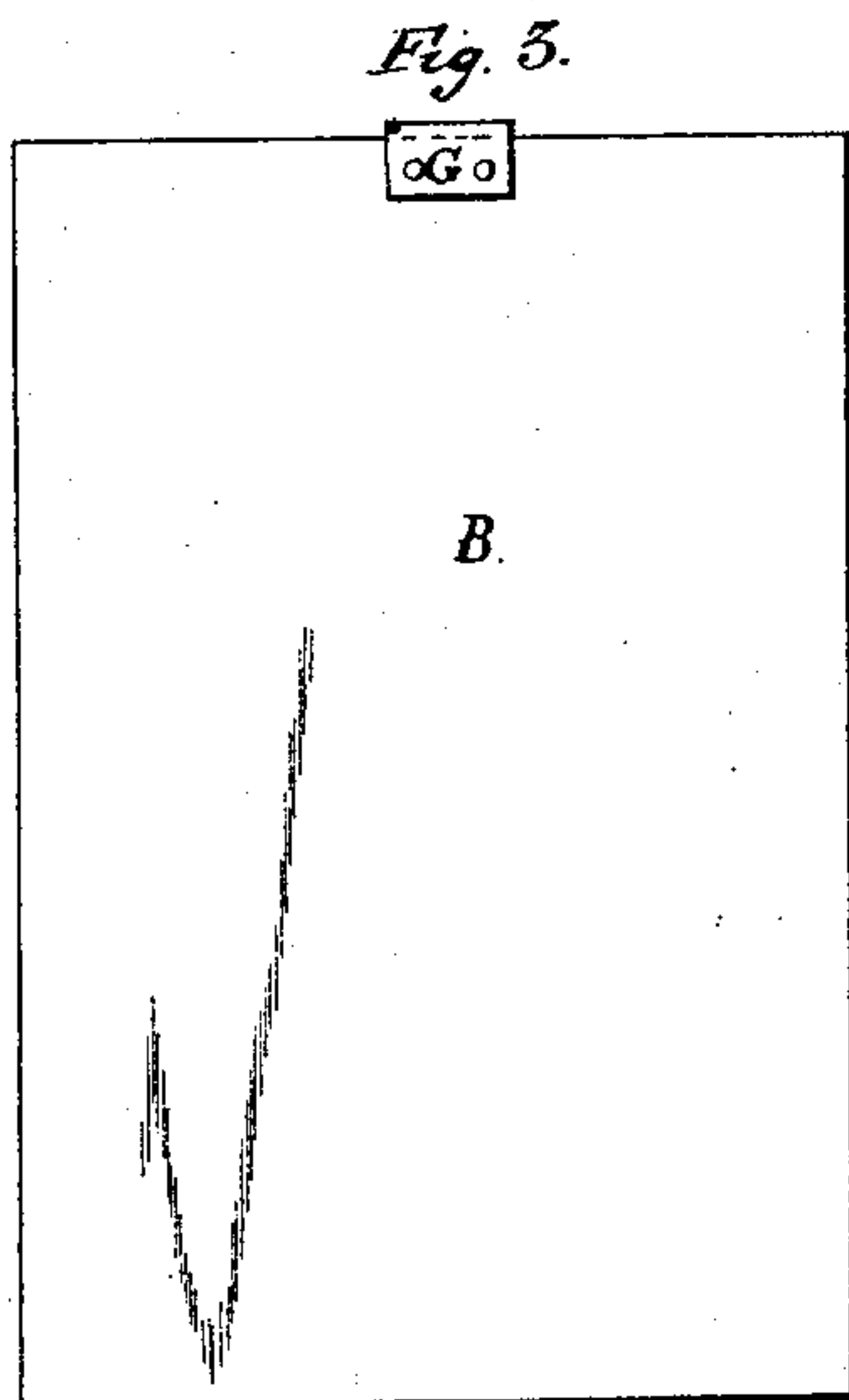


Fig. 3.



Fig. 4.

Attest:
T. C. Bruch,
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William E. Clegg,
by W. E. Brock
Atty.

UNITED STATES PATENT OFFICE.

WILLIAM E. CLEGG, OF WASHINGTON, DISTRICT OF COLUMBIA.

MEANS FOR PROTECTING EYE-SIGHT.

SPECIFICATION forming part of Letters Patent No. 303,559, dated August 12, 1884.

Application filed February 26, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. CLEGG, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Devices for Improving Eye-Sight; 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.

Figure 1 represents a plan view of a device to which my invention has been applied. Fig. 2 is a similar view of a modified plan in which I intend carrying out my invention. Figs. 3 and 4 represent still another modification of my improvement, Fig. 3 being a plan and Fig. 4 being an edge view, partly in section. Fig. 5 shows a detail view of still another modification.

My invention relates to devices for preserving the eye-sight in the reading of books and papers.

In the published reports of scientific bodies in this and other countries regarding defective eye-sight among adults and children, the proportion of people affected has been shown to be largely on the increase. In Germany special examinations have been made in the various educational institutions, which give the percentage of defective eye-sight varying from ten to eighty-five. Similar examinations have been held in the schools of France and England with like results. The same results have been deduced from examinations and reports in this country. The causes which lead to this deterioration of eye-sight have been found to be most largely due among reading people to the colors entering into the printing of books and papers. White paper and black ink are tending to ruin the human eye-sight. The eye cannot long sustain, without injury to a greater or less extent, the broad glare of a white surface. In support of these facts the article on "Defective Eye-Sight" in the "Popular Science Monthly," volume xxiv, page 357, may be referred to. To remedy these evils, as far as the perusal of books and papers are concerned, is the object of my invention.

The invention consists in the interposition of a colored transparency held in position by suitable holding devices for attaching it to the printed page when it consists of white paper,

the color or shade of the transparency being that which shall be best adapted to soften the glare of the page to be read.

To carry out my invention whereby I am enabled to protect the eyes from the dazzling or straining effects occasioned by the use of white and black in the printed page, reference will be had to the accompanying drawings.

A represents a book-holder comprising, preferably, the binding of a book, although it may be made in other obvious forms. It serves as a holder of the book to be read, and also to keep one or more transparencies, B, in position. This is effected by securing to both the holder and the transparency a cord, C. This cord is preferably attached to a corner of the transparency in such manner as to bring the transparency over the page and against the binding side of the book when the latter is laid open in the holder and the cord is brought under tension.

D is a shade of some colored paper or cardboard, attached, in the same manner as the transparency, by a cord, C'; but I may use a transparency in its place, if desired.

Fig. 2 shows the holder provided with raised projections E, to which the transparencies are hinged, so as to fold over the printed page. F is a ledge formed on the lower edge of the holder to support the book; but it may be dispensed with.

In Figs. 3 and 4 a single transparency is shown, having attached to its upper edge, by rivets or other suitable fastenings, a clip, G. This clip is provided with an edge, g, arranged in the same plane or direction as the transparency, and is adapted to be applied to any book by inserting the edge between the leaves of the book back of the page to be read. A distance is left between the edge g and the glass B sufficient to allow the interposition of a number of leaves, so as to provide a firm bearing for the clip. It will be understood that these transparencies may be made of any size or shape suitable for the purpose, and that glass, mica, or any other transparent medium, appropriately colored, may be employed.

Fig. 5 exhibits my improved transparency designed as a convenient form for pocket use. It consists of the glass B, having a ledge, H, in which the glass is secured. I is a handle,

so hinged to the ledge or frame that it can be folded alongside the frame out of the way when desired to be put in the pocket or stowed away.

My improvement is distinguished from colored spectacles or "goggles." When colored spectacles are worn everything observed takes on the color of the spectacles, which is very objectionable to the wearer, except in pronounced cases of weak eyes, which will not bear the direct light. In my invention I provide simply a colored printed page of some soft tint where a glaring white existed before. Common plane colored glass used in spectacles also has a tendency to injure the eye by being worn so near the eye as to catch all the varied reflections of the glass and project them upon the pupil. I do not therefore wish to be un-

derstood as claiming such spectacles of colored glass.

What I do claim, and desire to secure by Letters Patent, is—

The herein-described device for producing a colored tint or shade upon reading-matter printed or engrossed upon white paper, which consists of a colored transparency provided with holding devices, substantially as described, whereby the glass is secured to the page over the matter to be read.

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

WILLIAM E. CLEGG.

Witnesses:

F. B. ROCK,
H. A. HALL.