No. 742,384. PATENTED OCT. 27, 1903.

F. BIRKENSTEIN.

SPRING FOR FOLDING EYEGLASSES.

APPLICATION FILED OCT. 7, 1902.

NO MODEL.

Fig. 1.

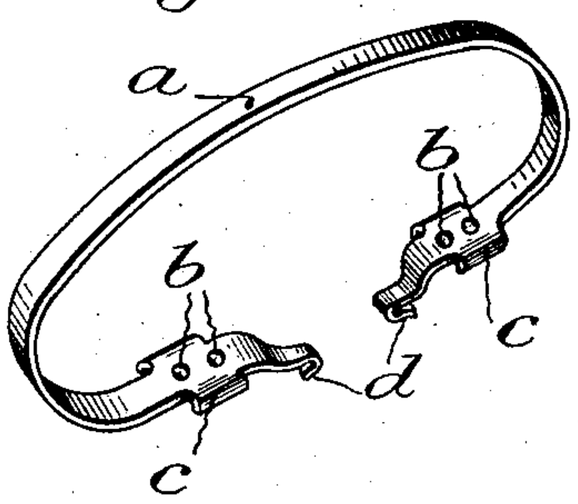


Fig. 3.

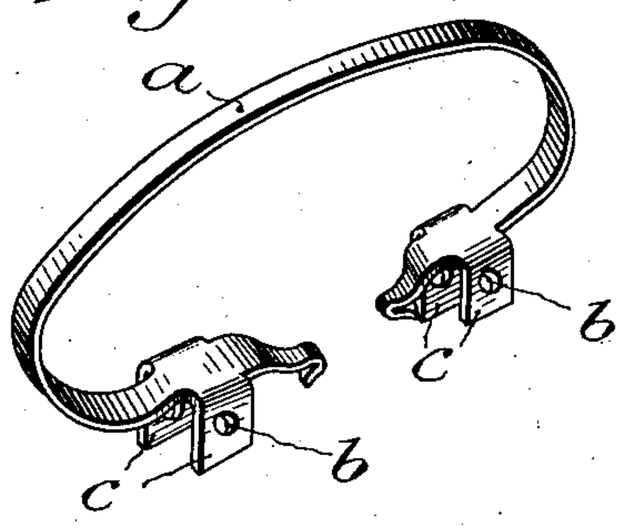


Fig. 2.

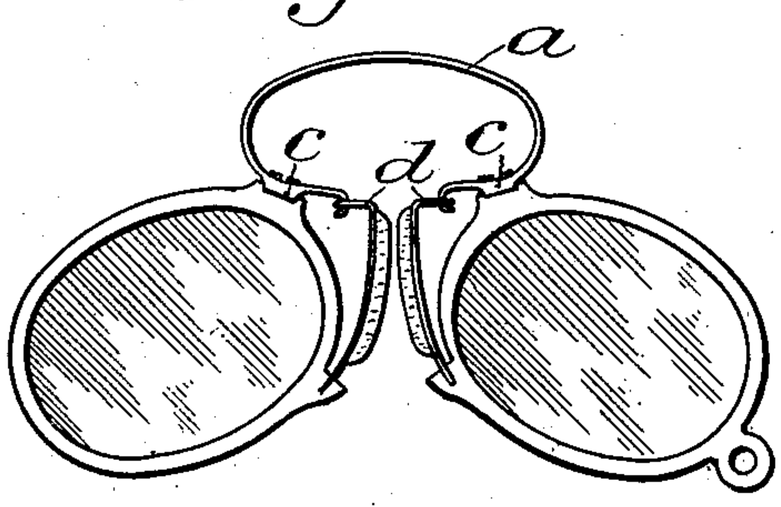


Fig. 4.

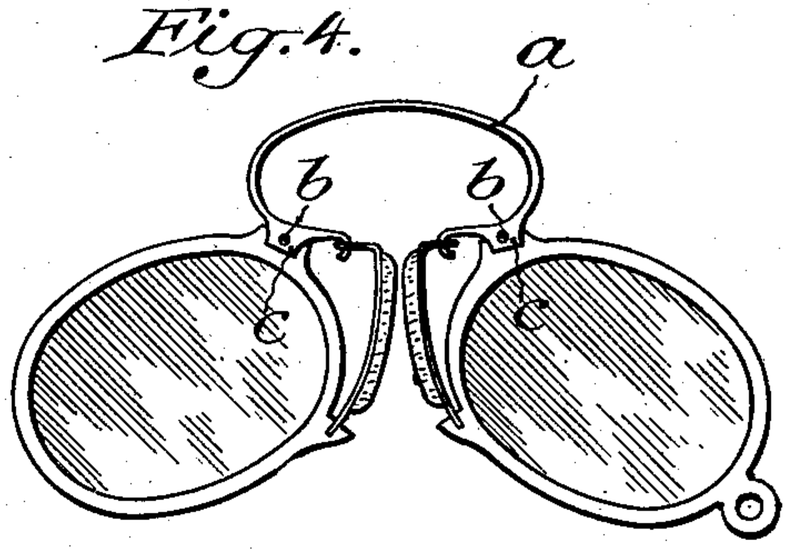


Fig. 5.

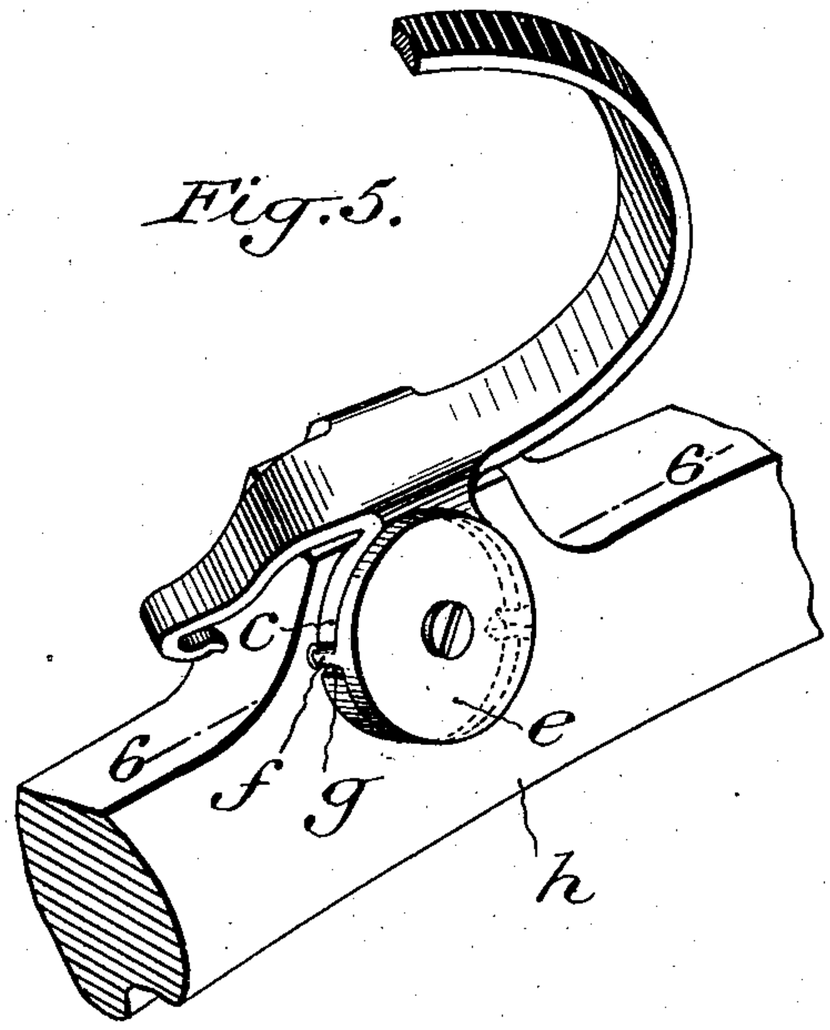
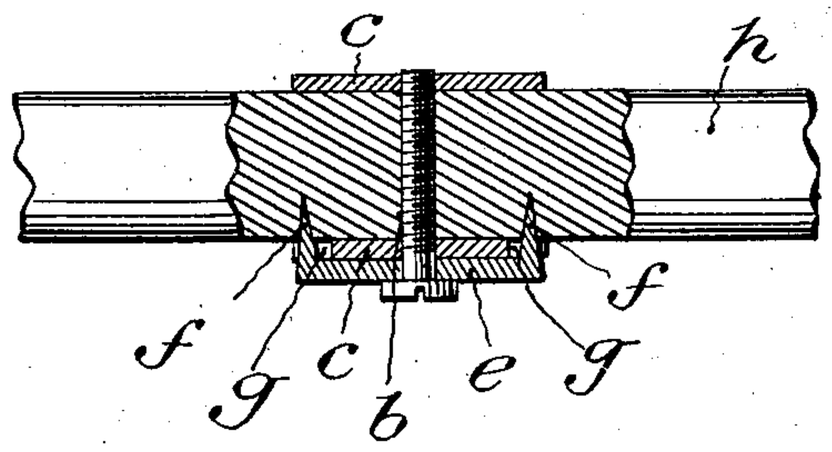


Fig. 6.



Witnesses:-
Henry Thiel
George Barry Jr.

Inventor:-
Ferdinand Birkenstein
by attorneys
Brown & Seward

No. 742,384. Patented October 27, 1903.

UNITED STATES PATENT OFFICE.

FERDINAND BIRKENSTEIN, OF FRANKFORT-ON-THE-MAIN, GERMANY, ASSIGNOR TO THE FIRM OF F. BIRKENSTEIN & CO., OF FRANKFORT-ON-THE-MAIN, GERMANY.

SPRING FOR FOLDING EYEGLASSES.

SPECIFICATION forming part of Letters Patent No. 742,384, dated October 27, 1903.

Application filed October 7, 1902. Serial No. 126,297. (No model.)

To all whom it may concern:

Be it known that I, FERDINAND BIRKENSTEIN, manufacturer, residing at Wolfsgangstrasse No. 80, Frankfort-on-the-Main, Germany, have invented new and useful Improvements in Folding Eyeglasses, of which the following is a specification.

The attachment of the springs of folding eyeglasses to the edges of the glass frames or rims is commonly effected by means of small screws which pass through holes provided in the spring itself. These holes cause considerable weakness of the spring at the point of its attachment, just where it is subjected to the maximum bending stress, so that a breakage of the spring almost always takes place at that point. Hitherto it has only been possible to strengthen this part of the spring by increasing its width, and this could only be effected by making the entire folder stronger and heavier.

The object of the present invention is to obviate this drawback and to insure a greater durability of the spring, particularly at its points of attachment, while retaining the present lightness of construction of the folder. To effect this object, the folder-spring according to the present invention is formed at those parts where the screw-holes are provided with extensions in width which are bent over in trough-like form to receive the glass frames or rims between them, so that the material of the frames or rims can be firmly clamped in such a manner by and between the bent-over parts of the spring that the attachment-screws are prevented from falling out or from being forced in tightening up. Consequently the mounting can be fixed in a more durable manner. In those cases where the attachment is effected by side screws passing through clamping-jaws on the rims or frames of the glasses the bent-over parts of the spring can be extended downward, so that the screws can be passed through the perforated clamping-jaws. In order to afford still greater security in this case, the jaws may have mounted on them a small plate having downwardly-bent extensions in such a manner that they are held fast by the screw, while the bent-over extensions engage with the rim of the glass through slots or recesses in the jaw, and thus prevent all movement of the parts.

In the accompanying drawings, which illustrate the present invention, Figure 1 is a perspective view of one example of the folder-spring. Fig. 2 is a front view of a pair of eyeglasses having a folder-spring like that shown in Fig. 1. Fig. 3 is a perspective view of a modification of the spring. Fig. 4 is a front view of a pair of glasses having the spring shown in Fig. 3. Fig. 5 is a perspective view, on an enlarged scale, showing a further modification of the example shown in Figs. 3 and 4; and Fig. 6 is a section on the line 6 6 of Fig. 5.

The spring *a* is provided at those parts where it is to be attached to the glasses with holes *b* for the reception of the screws, and at these parts the breadth of the spring is enlarged, so as to form bent-over flaps *c*, which embrace the rims or frames of the glasses. The small guide-hooks *d* for the clamping-jaws are made in one piece with the spring; but they may be affixed separately thereto.

In the form of construction shown in Figs. 3 and 4 the bent-over flaps *c* are prolonged downward in such a manner as to form clamping-jaws for attaching the spring to the rims or frames of the glasses. In these figures, *b* also indicates the holes through which the screws pass, and *d* the small guide-hooks for the clamping-jaws.

As shown in Figs. 5 and 6, a small plate *e* is provided, which serves to prevent the movement of the parts and the shearing of the screws in the holes *b*. This small plate is placed on one side of the clamping-jaws *c*, and it is provided with downwardly-bent pins or lugs *f*, which engage with the rim *h* of the glasses through slots *g* in the clamping-jaws *c*.

Now what I claim, and desire to secure by Letters Patent, is the following:

1. In folding eyeglasses, the combination with the glass-frames, of a folder-spring having extensions in width which are turned over in trough-like form to receive between them and clamp the parts of the frames to which the spring is attached.

2. In folding eyeglasses, the combination with the glass rims or frames, of a folder-spring

having lateral flaps which receive between them the parts of the rims or frames to which the springs are attached, plates placed over said lateral flaps and having spikes passing through notches in said flaps and penetrating into the glass rims or frames and means for clamping said plates and flaps together upon the rims or frames.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FERDINAND BIRKENSTEIN.

Witnesses:
JEAN GRUND,
CARL GRUND.