

(No Model.)

J. P. MICHAELS.
Eyeglasses.

No. 236,687.

Patented Jan. 18, 1881.

FIG:1.

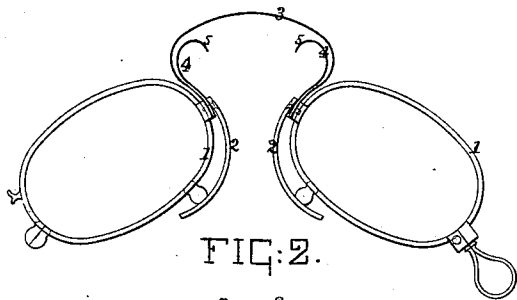


FIG:2.

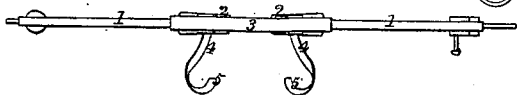


FIG:4.

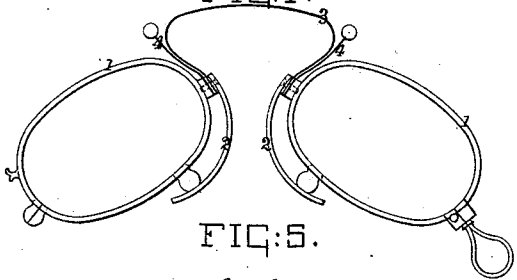


FIG:5.

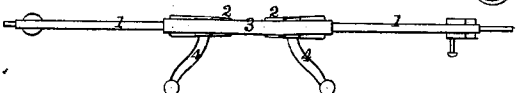


FIG:7.

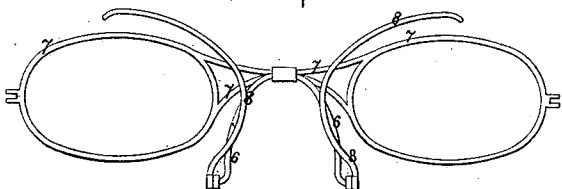


FIG:3.

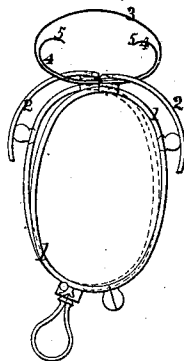


FIG:6.

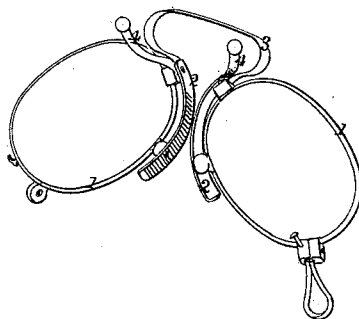
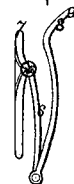


FIG:8.



Attest;

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UNITED STATES PATENT OFFICE.

JOSEPH P. MICHAELS, OF NEW YORK, N. Y.

EYEGLASSES.

SPECIFICATION forming part of Letters Patent No. 236,687, dated January 18, 1881.

Application filed May 27, 1880. (No model.)

To all whom it may concern:

Be it known that I, J. PORTER MICHAELS, of New York city, county and State of New York, residing in Paris, France, have invented certain new and useful Improvements in Eyeglasses; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Various attempts have been made to improve the frame-work of ordinary eyeglasses, with a view to render the glasses more stable when once set upon the nose. It has generally been sought to obtain this result by adapting fixed or movable arms on the frame-work, which were intended to afford an additional bearing upon the nose, said arms being especially used to prevent the tipping forward of the glasses, which commonly results from the contracting pressure of the spring; but all such arrangements have been found, in practice, to be productive of more or less serious inconvenience to the wearer, which prevented their general adoption, being either too complicated or not sufficiently effective; besides, their form or construction has been defective, inasmuch as they caused considerable pain to the wearer when he kept the glasses in position upon the nose for any considerable time.

The present invention consists in a construction and arrangement of such additional arms or braces whereby all these difficulties are overcome and the desired objects attained in a more perfect manner than has been the case with former devices.

I construct and arrange the braces in such a manner that when they are extended for use and the glasses are set upon the nose they reach inward into the cavity of the eye and abut against the fleshy part at or near the center of the eyebrows, so that the edge of the bone forming the eyebrow overhangs the extremities of the braces and extends to a small distance downward in front of them. From this peculiar arrangement follows the double advantage that the braces keep the glasses from becoming displaced either by moving

upward or by tipping over forward. Besides, the braces arranged in this manner act as automatic regulators for determining the distance from the eyes at which the glasses come to rest upon the nose, because such glasses, after being set, will be slightly pressed upward by the contracting force of the spring until the extremities of the braces find their good bearing in the cavity of the eye, and when once seated in such position the glasses will be immovably held by the combined action of the spring and braces.

The advantages of my invention may be realized also by applying it to spectacles and other binocular glasses of the ordinary or any desired shape or construction. In every case the extremities of the braces are so shaped that they offer a comparatively large and preferably elastic bearing-surface, so as to prevent the pain which might otherwise arise from their being in contact with the flesh for a considerable time.

In order that my invention may be more clearly understood, I will describe it in detail conjointly with the eight figures of the accompanying drawings, in which—

Figure 1 is an elevation of a pair of eyeglasses provided with my regulators, the same being capable of turning down, so as to admit of the eyeglasses being folded. Fig. 2 is a plan of the same; Fig. 3, a view of the same folded up entirely; Fig. 4, an elevation of a modification of these eyeglasses; Fig. 5, a plan of Fig. 4; Fig. 6, a perspective view of Fig. 4. Fig. 7 shows the application of my improvements to ordinary spectacles, the branches of which are removed, and Fig. 8 is a cross-section of Fig. 7.

Referring to the arrangement shown at Figs. 1, 2, and 3, 1 is an ordinary eyeglass-frame; 2 2 the usual bearing-pieces which hold the glasses upon the nose. 3 is the contracting spring, which acts in the usual manner, for imparting the necessary pressure to the bearing-pieces 2. 4 4 are two arms adapted to and capable of swiveling on the pins which connect the spring 3 and the upper ends of the bearing-pieces 2 to the frame. These arms 4 4 are curved at the upper ends in order to offer a rounded bearing under and against the eyebrow-arch, at or near its center, or they may

be covered over with any suitable soft material, as shown in Fig. 4. When the glasses are not in use the arms 4 4 are swiveled back into the same plane as the glasses, and the latter
 5 may be folded, as shown in Fig. 3, and inserted into their case or *étui*. When the glasses are to be used the arms 4 4 are swiveled outward and are brought to abut under and against the eyebrow-arch at or near its center, so that
 10 their extremities arrive above and behind the edge of the bone forming the arch, a suitable stop being arranged in the swivel to prevent the arms swinging out too far. When in this peculiar position the braces 4 prevent the
 15 glasses not only from moving upward in consequence of the contracting force of the spring 3, but also from tipping over forward, because the extremities of the braces cannot clear the eyebrow-arch without the entire frame being
 20 considerably depressed, which the spring 3 does not permit.

The modification shown in Figs. 4, 5, and 6 consists in arranging the arms 4 outside of the spring 3 and in fixing on the ends of the arms
 25 4 small buttons of rubber, ivory, horn, or any other suitable material, which act similarly to the bent ends 5, (shown in Figs. 1, 2, and 3,) to present a rounded surface, which will not in any way be disagreeable or injurious to the
 30 user.

In Figs. 7 and 8 I have represented a construction of glasses embodying my invention applicable to ordinary spectacles, with the exception that this new construction does away with
 35 the hinged branches reaching back over the ears. In this case the spring is replaced by a spring-wire, 6, attached to or forming a part of the frame 7, as shown. The lower ends of this wire are provided with a hinge,
 40 to which is jointed a wire, 8, projecting upward and intended to abut under and against the eyebrow-arch, as in the former cases. This wire may either be as shown, or be prolonged

and joined, or not, to the outer ends of each glass, so as to enable its being folded and inserted in its case; or the hinges may be dispensed with altogether. This construction is particularly intended as a substitute for the ordinary means of fixing spectacles, the branches of which should be previously removed. The
 50 parts bearing upon the nose may be corrugated or rough, as in the usual manner.

Many modifications may be made in the details of construction, in carrying out my invention, without departing from its principles or sacrificing the advantages thereof. Thus the regulators may be arranged in such a position that they bear near the outer end of the eyebrow-arches, and they may be adapted to ordinary spectacles, as well as the eyeglasses
 60 of any well-known or desired construction of the frame and its accessories.

Having thus described the nature of my invention, as well as the best means of carrying the same out in practice, I claim—

1. The combination, with the bearing-pieces 2 or 6 of spectacles, of braces, as 4 or 8, the said braces being so constructed as to bear, when the spectacles are set upon the nose, upon the underside of the arch forming the eye-socket or
 70 eyebrow-ridge, all substantially as described.

2. In an eyeglass-frame, the combination, with the bearing-pieces 2 and spring 3, of hinged braces 4, of suitable shape, so as to bear, when swung into position for use, against
 75 the eyebrow-arch at or near its center, their curved or otherwise suitably-shaped ends bearing upon the under side of the arch forming the eye-socket or eyebrow-ridge by the tendency of the bearing-bows 2 to move upward
 80 under the pressure of the spring 3, all substantially as described.

JOSEPH PORTER MICHAELS.

Witnesses:

ROBT. M. HOOPER,
 R. H. BRANDO.