

(No Model.)

J. F. LINDVALL.
WATCH DIAL FASTENER.

No. 598.523.

Patented Feb. 8, 1898.

Fig. 1.

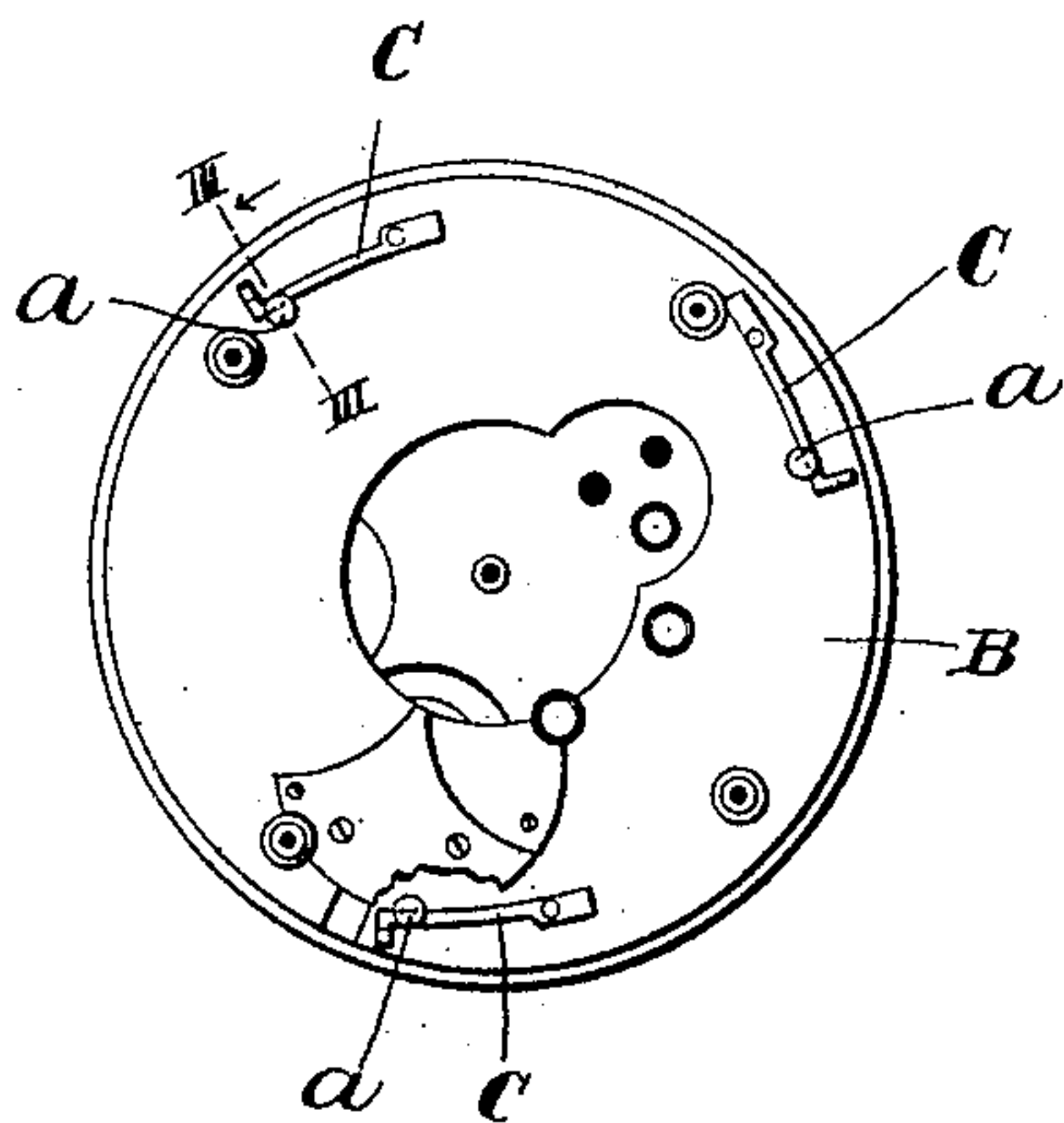


Fig. 2.

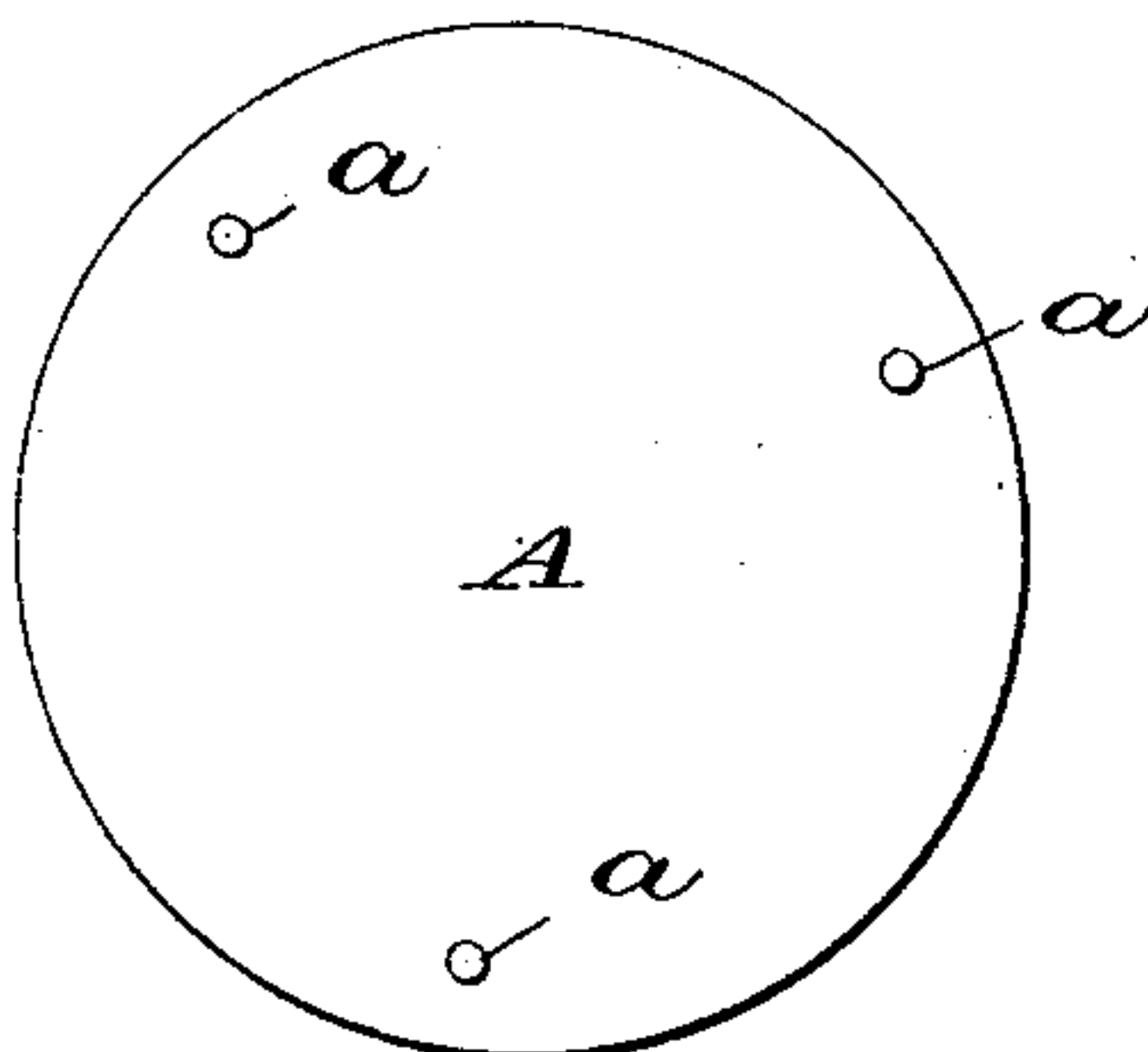


Fig. 3.

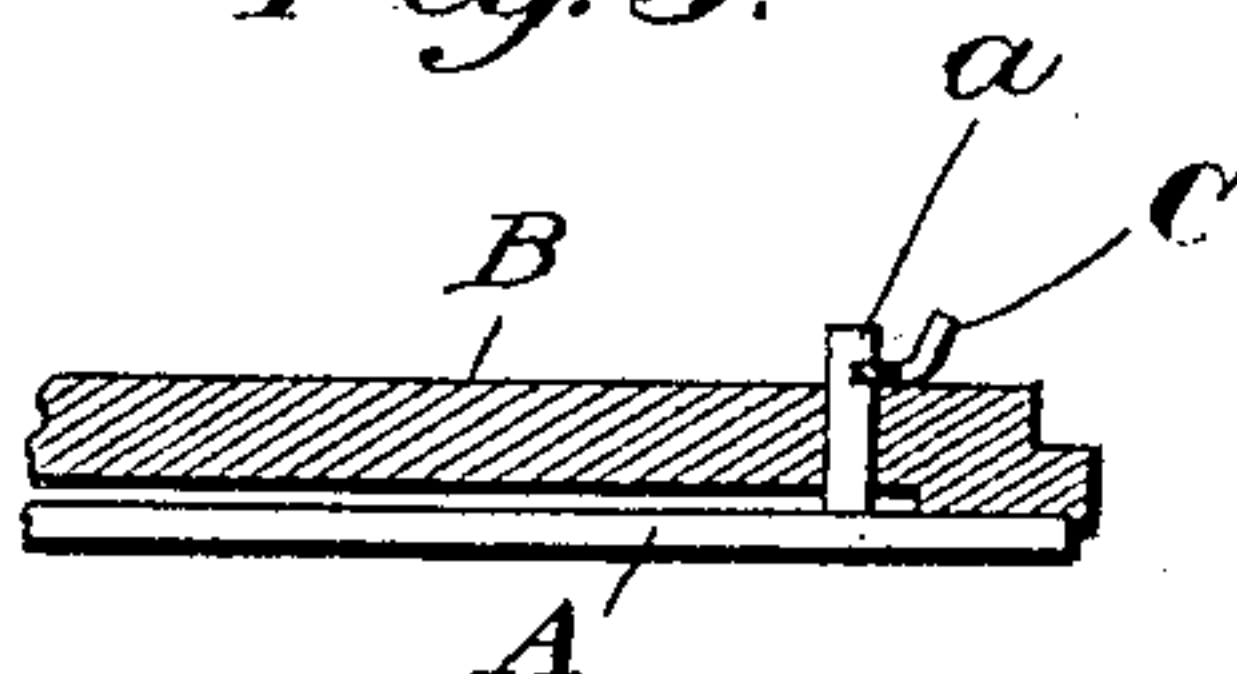
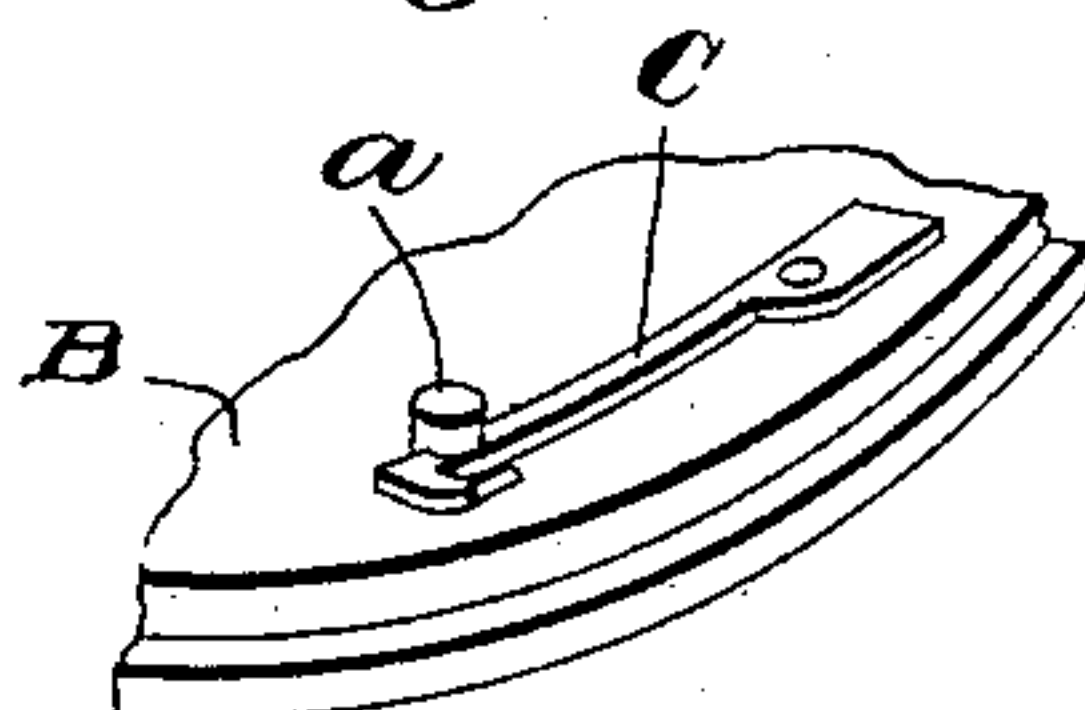


Fig. 4.



WITNESSES

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JOHN F. LINDVALL, OF MOLINE, ILLINOIS.

WATCH-DIAL FASTENER.

SPECIFICATION forming part of Letters Patent No. 598,523, dated February 8, 1898.

Application filed February 4, 1897. Serial No. 621,920. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. LINDVALL, a citizen of the United States, residing at Moline, in the county of Rock Island and State of Illinois, have invented certain new and useful Improvements in Watch-Face Fasteners; 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.

This invention relates to watches, but more particularly to devices for securing and holding the face-plates thereof.

The invention will first be hereinafter more particularly described with reference to the accompanying drawings, which form a part of this specification, and then pointed out in the claims at the end of the description.

In the drawings, in which similar letters of reference are used to denote similar parts, Figure 1 represents a rear view of the pillar-plate on which the works of the watch are mounted, the works being removed. Fig. 2 is a rear view of the dial or face-plate removed. Fig. 3 is a detail sectional view on the line III III of Fig. 1, showing on a slightly-enlarged scale a portion of the pillar-plate and face-plate secured together by one of the devices embodying my invention; and Fig. 4 is a perspective view of a part broken away.

It has heretofore been the common practice to provide dials or face-plates of watches with posts or standards on the back thereof adapted to pass through apertures in the pillar-plate and to secure the post in the aperture by means of a set-screw entering a screw-threaded aperture in the pillar-plate and having its point in contact with the side of the post, so as to prevent the post from being withdrawn until the screw is loosened, thus securing the dial or face-plate and pillar-plate together. Such set-screws, however, are very small and not easily handled, and unless screwed up tight they will not hold the face-plate in place and are liable to work loose and drop out. Moreover, the constant tightening wears both the screw and the threads in the pillar-plate, so that it is finally impossible to get a screw to stick or remain in its normal position, and in tightening such screws after they work loose it often happens that

the head or half of the screw will break off, in which case it is almost impossible to get the broken portion out of the aperture or socket in the pillar-plate. This is a very common occurrence in repairing watches. Furthermore, these set-screws will work out, thus loosening the dial, which will fall against the seconds-hand and stop the watch or interfere with its time-keeping, and when the dial gets loose there is so much space between it and the pillar-plate that the dial-wheel will then get out of place and skip a cog, causing the hour-hand to get out of place—as, for instance, pointing to the hour when the minute-hand indicates “half-past.” In a certain class of watches these set-screws work out part way, so that in taking the works out of the case the screw catches against the edge of the inside of the case and must be forced out either through the metal of the case or by breaking the screw, and, the posts being embedded in and under the enamel of the face and in fastening dial, when pushed over by the set-screw impinging against its side, will crack the enamel and deface the dial.

Another method of securing the dial or face-plate of watches consists in inserting pins through apertures in the ends of the posts or standards, which project from the face-plate through apertures in the pillar-plate. This method is still in use, but to very little extent, because the wear on the pins allows the face-plate to work loose and the pins soon drop out and get in the works, thereby injuring the watch.

My invention is designed to overcome the foregoing objections and to provide a simple, inexpensive, and efficient device for securing and holding the face-plates or dials of watches in place and to adapt them to be easily and quickly removed and replaced.

In the drawings the letter A denotes the face-plate or dial of a watch, from the back of which project the standards or posts *a a*, two or more of such posts being usually required for the purpose of securing the face-plate to the pillar-plate.

B denotes the under or pillar plate, to which the works of the watch are secured in the usual manner and which is provided with a number of sockets or apertures corresponding with the number of posts projecting from

the face-plate, the apertures in the pillar-plate being arranged so as to register with the posts in the face-plate when the two parts are placed in proper position for securing them together.

On the back of the pillar-plate B are secured in any proper manner a number of spring-catches C, corresponding with the number of posts on the face-plate. These springs may be secured at one of their ends to the pillar-plate and their other or free ends arranged to normally engage notches or recesses formed in the sides of the projecting ends of the posts *a*, so that the latter after insertion may not be withdrawn without first releasing the same from the catch. By these means the dial or face-plate may be easily and quickly secured to the pillar-plate and will be retained in position without liability to work loose. No jarring of the watch can throw the spring out of engagement with the post, and it is thus impossible for the face to work loose, and when it is desired to remove the face for any purpose it can be done very easily and quickly by merely forcing the spring-catches out of the notches in the posts. The fastening is also very secure, and there is nothing to get loose or rattle and no wearing parts, because the springs are kept firmly against the posts, thus preventing any rubbing or wear. The device is also very simple and inexpensive, and it can be put in any watch without any change, except cutting the notches or recesses in the posts and fastening the spring-catches in such manner that they may engage said notches, so as to prevent the posts from being withdrawn so long as they are engaged by the catches.

With the described fastening a face can be taken off and put on again in less time than is ordinarily required to remove one of the set-screws in common use for securing the face-plates of watches.

It will be understood, of course, that the shape and form of the spring may be varied at pleasure and that it may be secured by rivets or in any other suitable manner. In some cases it may be necessary to embed the spring in a recess, one of the springs being so shown in Fig. 1 of the drawings. It may also be desirable in some cases to use a semi-circular spring in order to avoid or get around a post or other obstruction. In Fig.

1 one of the springs is shown as being secured in a depression or recess in the pillar-plate underneath a bridge. I do not therefore desire to be limited to the exact construction shown and described, as various modifications of the spring and of the number of posts and springs may be used without departing from the spirit of my invention.

While I have described the invention as being particularly designed for securing the dials or face-plates of watches, it is obvious that the invention may be applied to other similar uses, such as securing the dials or face-plates of clocks and for other purposes, and hence I do not wish to limit the application of the invention to watches.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The combination of the pillar-plate of a watch-movement, with a dial or face-plate, and means for removably securing the latter over the front face of the former; said means comprising posts affixed to the face-plate adapted to project through apertures in the pillar-plate, and flat springs each fastened at one end to the rear face of the pillar-plate and projecting over an aperture therein and adapted to engage with the end of an adjoining post projecting through such aperture for retaining the face-plate on the pillar-plate, substantially as described.

2. In combination with a pillar-plate of a watch-movement having a series of apertures and a dial or face-plate adapted to fit over the front face of said pillar-plate; posts attached to the back of said face-plate adapted to project through the apertures in said pillar-plate, and laterally notched in their rear or projecting ends; and flat spring-catches on the rear face of the pillar-plate, fastened thereto at one end and engaging the projecting notched ends of said posts by their free ends, thereby retaining the dial or face-plate on the front face of the pillar-plate, substantially as described.

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

JOHN F. LINDVALL.

Witnesses:

HANNING L. LAWSON,
FRANK H. GLUESING.