C. ELLIOT.

SIGN.

APPLICATION FILED NOV. 7, 1913.

1,167,279.

Patented Jan. 4, 1916.

Fig. 1.

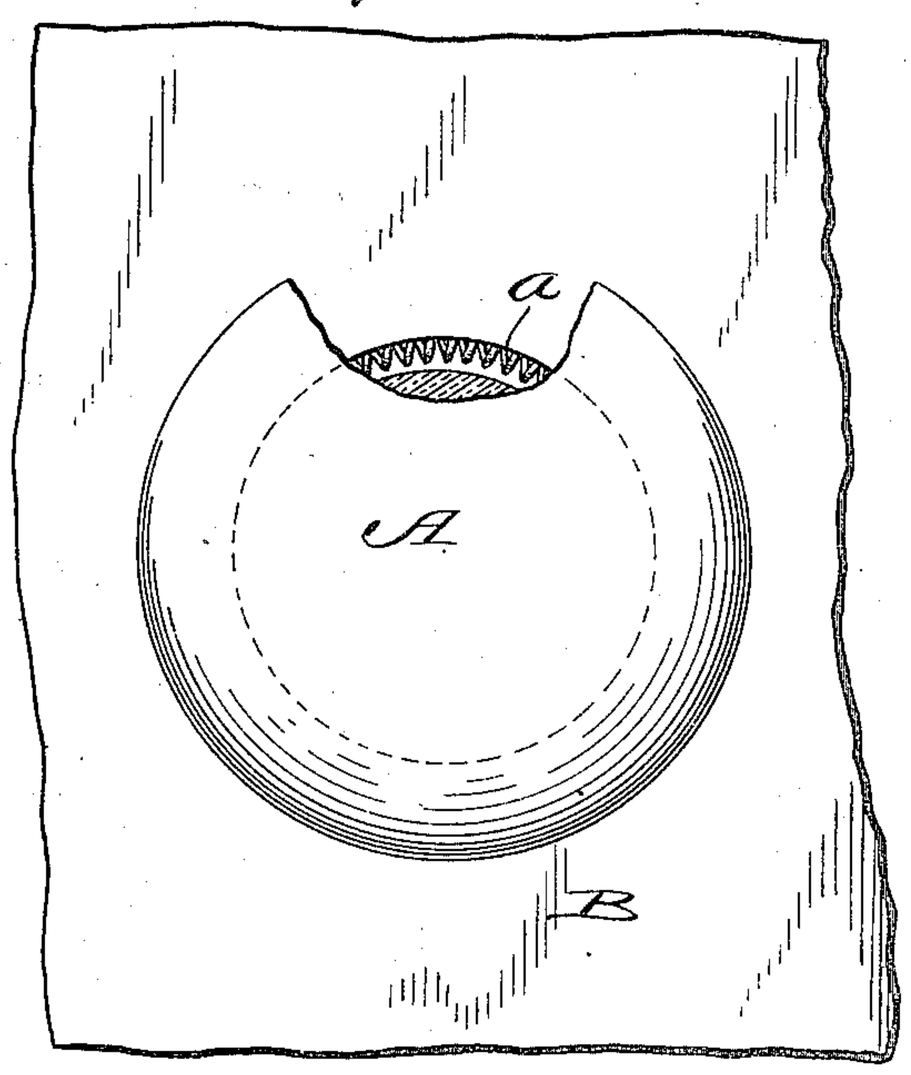


Fig. 2.

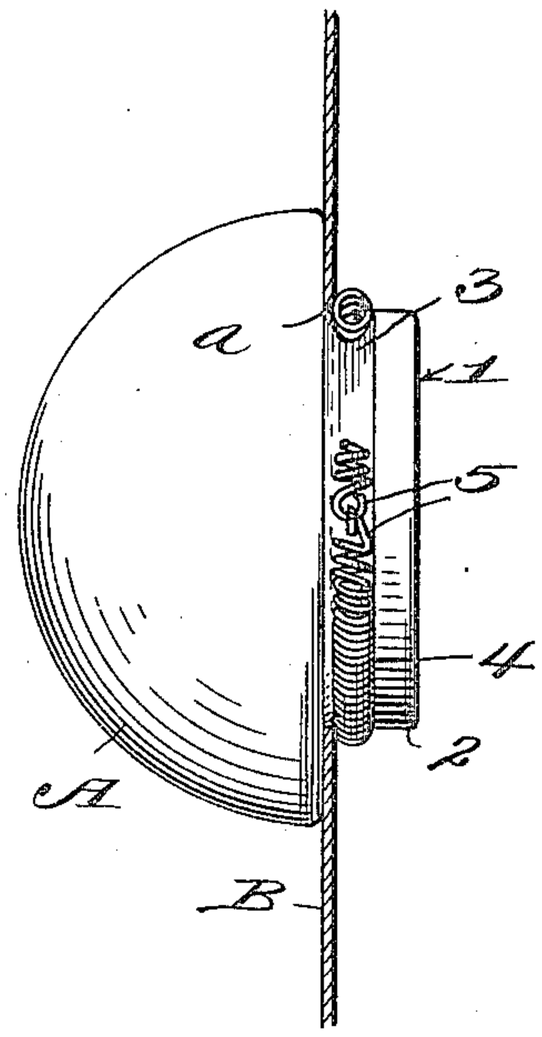
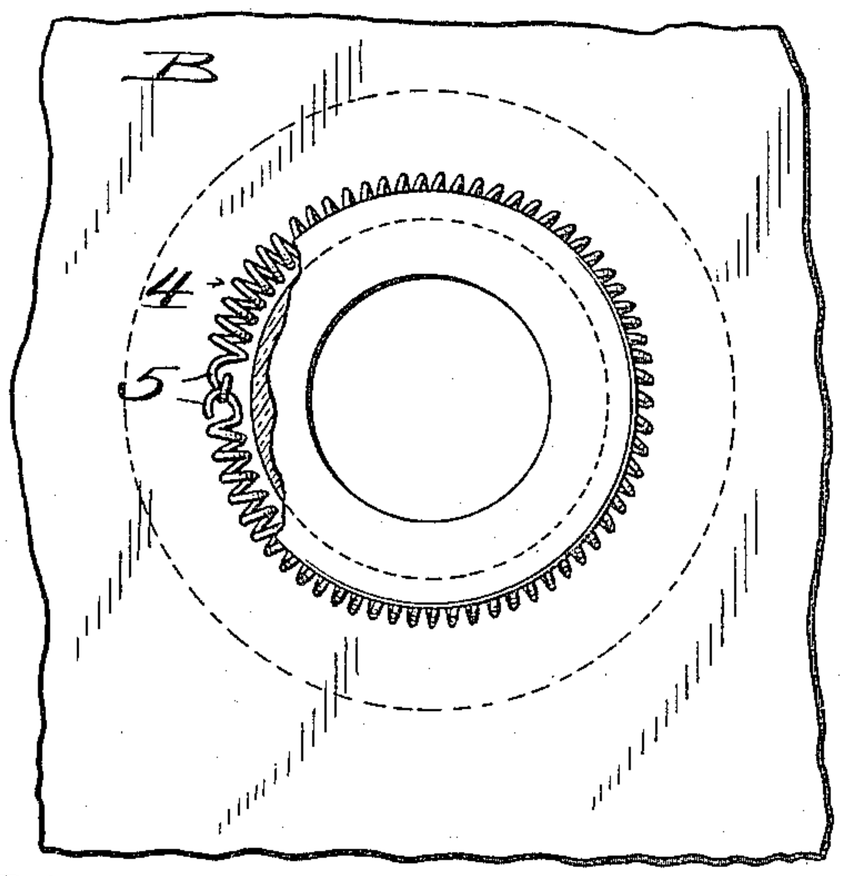


Fig. 3.



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UNITED STATES PATENT OFFICE.

CALEB ELLIOT, OF CLINTON, IOWA.

SIGN.

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Application filed November 7, 1913. Serial No. 799,783.

To all whom it may concern:

Be it known that I, CALEB ELLIOT, a citizen of the United States, residing at Clinton, in the county of Clinton and State of Iowa, have invented new and useful Improvements in Signs, of which the following is a specification.

This invention relates to improvements in signs of that type which embodies a casing inclosing one or more electric lamps and having its front walls fitted with lenses which are arranged to form letters, words, symbols, or ornamental configurations.

The invention relates more particularly to the manner of connecting the lenses and the plate with which they are associated, and it has for its principal object to provide a connection of simple and inexpensive character, which is so constructed as to readily adapt itself to minor irregularities in the surfaces between which it is fitted and to provide for a moisture-proof seal of the opening through which the shank of the lens projects.

A further object of the invention is to provide a connection for the purpose stated, which may be easily and quickly fitted and removed and which bears with uniform pressure at all points upon the surfaces between which it is arranged.

An embodiment of the invention is illustrated in the accompanying drawings, wherein:—

Figure 1 is a front elevation of a portion of a sign in which the features of the invention are incorporated, the lens being shown partly in section; Fig. 2 is a side elevation thereof, the face plate being shown in section; Fig. 3 is a rear elevation thereof, the lens being shown partly in section.

Similar characters of reference designate corresponding parts throughout the several views.

The lens is indicated generally by the letter A, and the plate with which it is associated by the letter B. The lens is provided with a shank 1 of reduced diameter and circular contour, and said shank is provided with a circumscribing shoulder 2 and with a groove 3 inwardly of said shoulder and between the same and the body of the lens. The groove 3 may have a curved or a tapered cross section, and is provided to receive the lens locking key 4, said groove having a greater degree of cross sectional curvature than said key. The said key 4 is of annular form and consists of a retractile coil spring having terminal hooks 5 which are engaged with one another, as shown in Figs. 2 and 3 to establish the annular outline of said key. The key 4 engages in the groove 3 and the diameter of its coils is such that said key is disposed partly in said groove and partly beyond said groove, and engages against the shoulder 2 and the face plate B. The length of the spring which is formed into the key 4 is so selected that said spring, when formed as an annular key and engaged in said groove in the manner stated, is under tension, and consequently, tends to contract, this tendency being substantially uniform throughout the extent of the key. By virtue of this tendency of the key, in combination with the curved or tapered cross sectional outline of the groove 3, the said key not only serves to prevent displacement of the lens from the face plate B, but it serves to hold the lens in close contact with the outer surface of said face plate, whereby the opening *a* of the face plate through which the shank 1 is inserted is effectively sealed against the passage of moisture to the interior of the sign box.

The key 4 may be easily and quickly fitted and removed. A convenient way to fit the key in position is to first engage the terminal hooks 5 thereof so as to establish the annular or circular form of the key, and to then spring the key over the shoulder 2 until it snaps into engagement in the groove 3. For the removal of the key, all that is required is to pry the key at some point in its length from the groove, sufficiently for the portion of the key thus disengaged from the groove to be passed over the shoulder 2, at which time the key may readily be pulled from position.

The operations just described of fitting and removing the key do not require the disconnection of the terminal hooks 5 and may be performed very easily and quickly, and without any special care, since no adjustments are required and the key automatically exercises its function of holding the lens in strong contact with the face plate immediately that it is engaged in the groove.

A key of the form shown is preferred, since it utilizes an ordinary coil spring and does not require any special machinery for its manufacture.

Having fully described my invention, I claim:

In a sign, in combination, a plate having an opening, a lens having a reduced circular shank which is inserted through the opening, the shank having a circumscribing shoulder and having a groove between the shoulder and the body of the lens, the said groove having a curved or tapered cross section, and a lens locking key consisting of a retractile coil spring of endless annular form, adapted to fit uniformly throughout its extent in the groove and having its coils of less pitch than said groove and with their diameter so selected that they are disposed partly within and partly beyond the groove and engage both the surface of the groove and the adjacent surface of the face plate, the said spring having such length that when fitted in the groove, it tends to contract, and thereby coöperates with the surface of said groove in holding the lens tightly against the plate.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CALEB ELLIOT.

Witnesses:
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