May 9, 1933. J. A. HOEGGER 1,908,147

THEFTPROOF HANGER FOR FRAMES

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Fig. 1

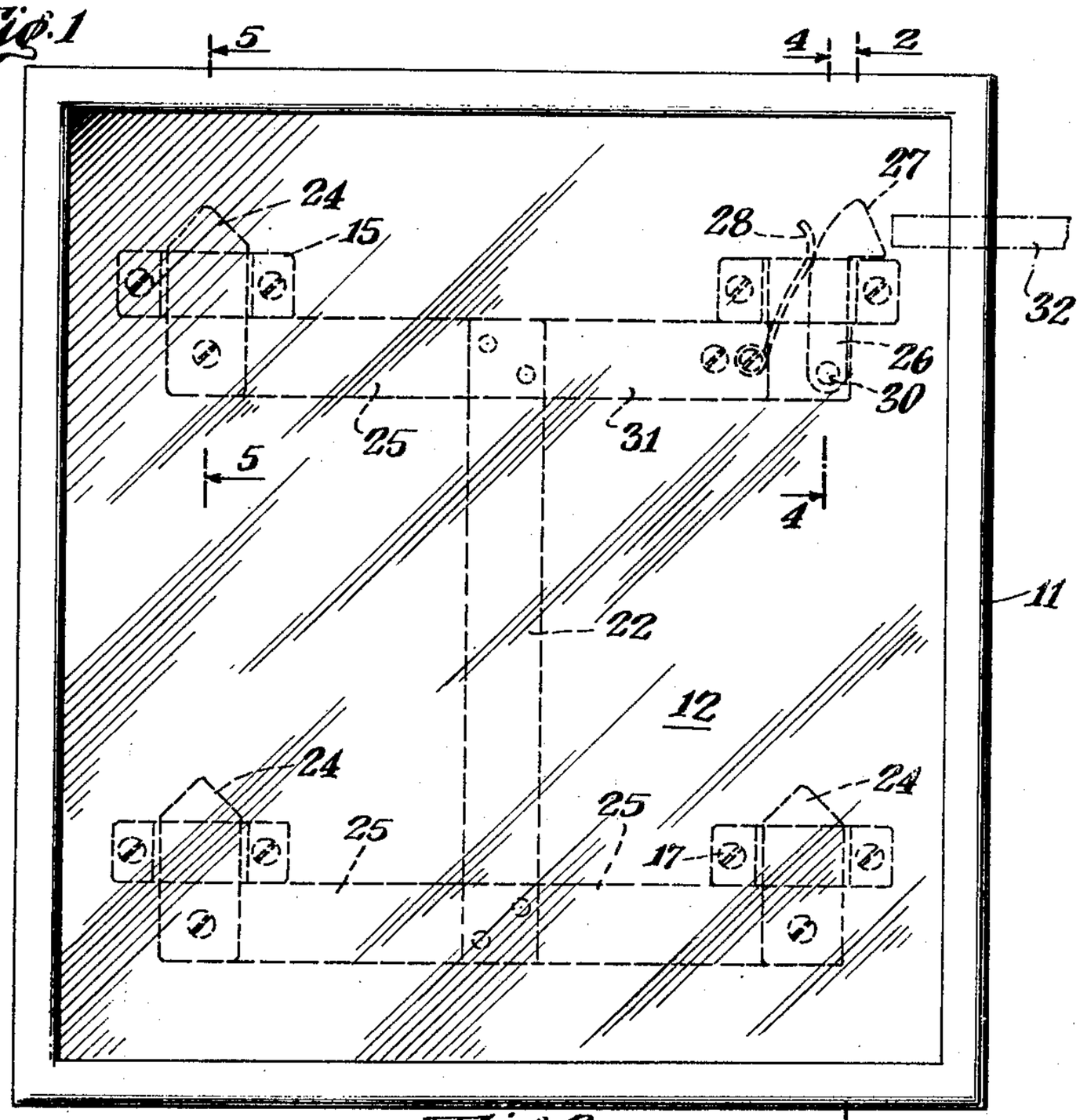

Fig. 2

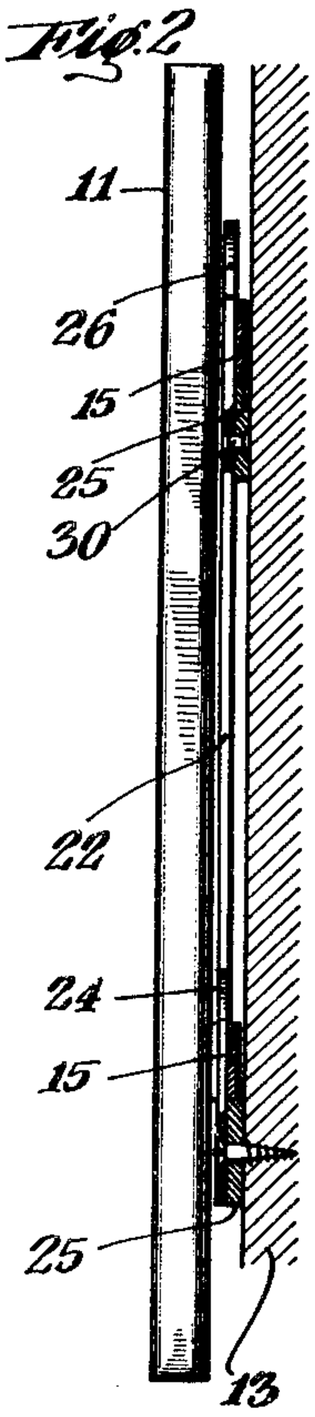

Fig. 3

Fig. 4

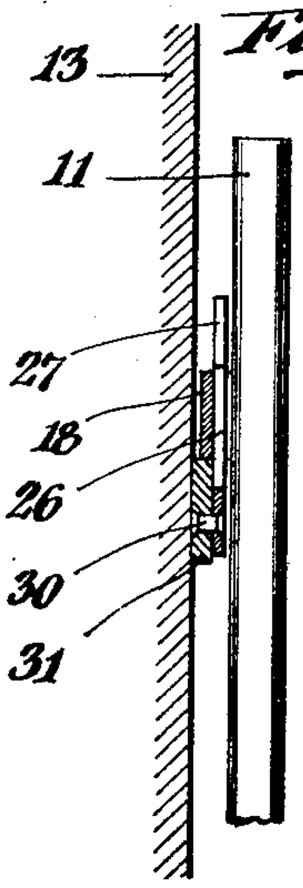

Fig. 5

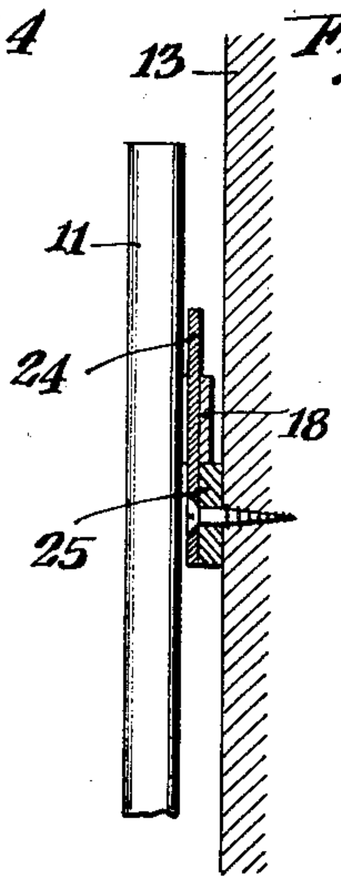

Fig. 6

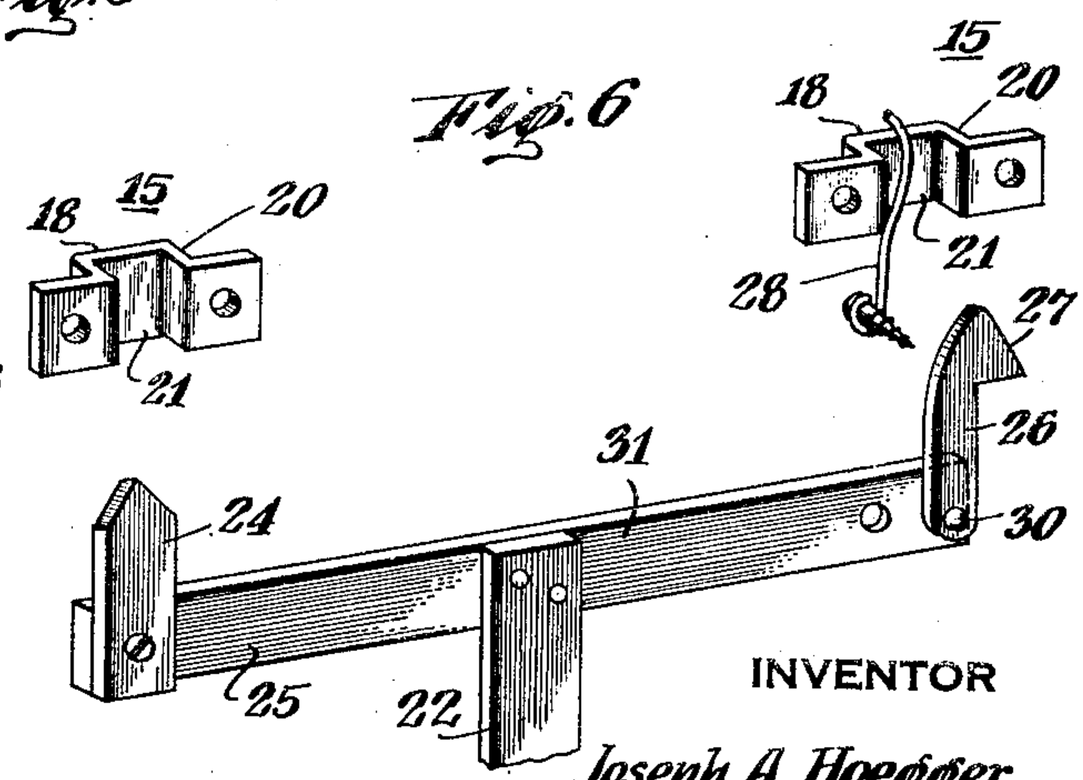

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Fig. 7

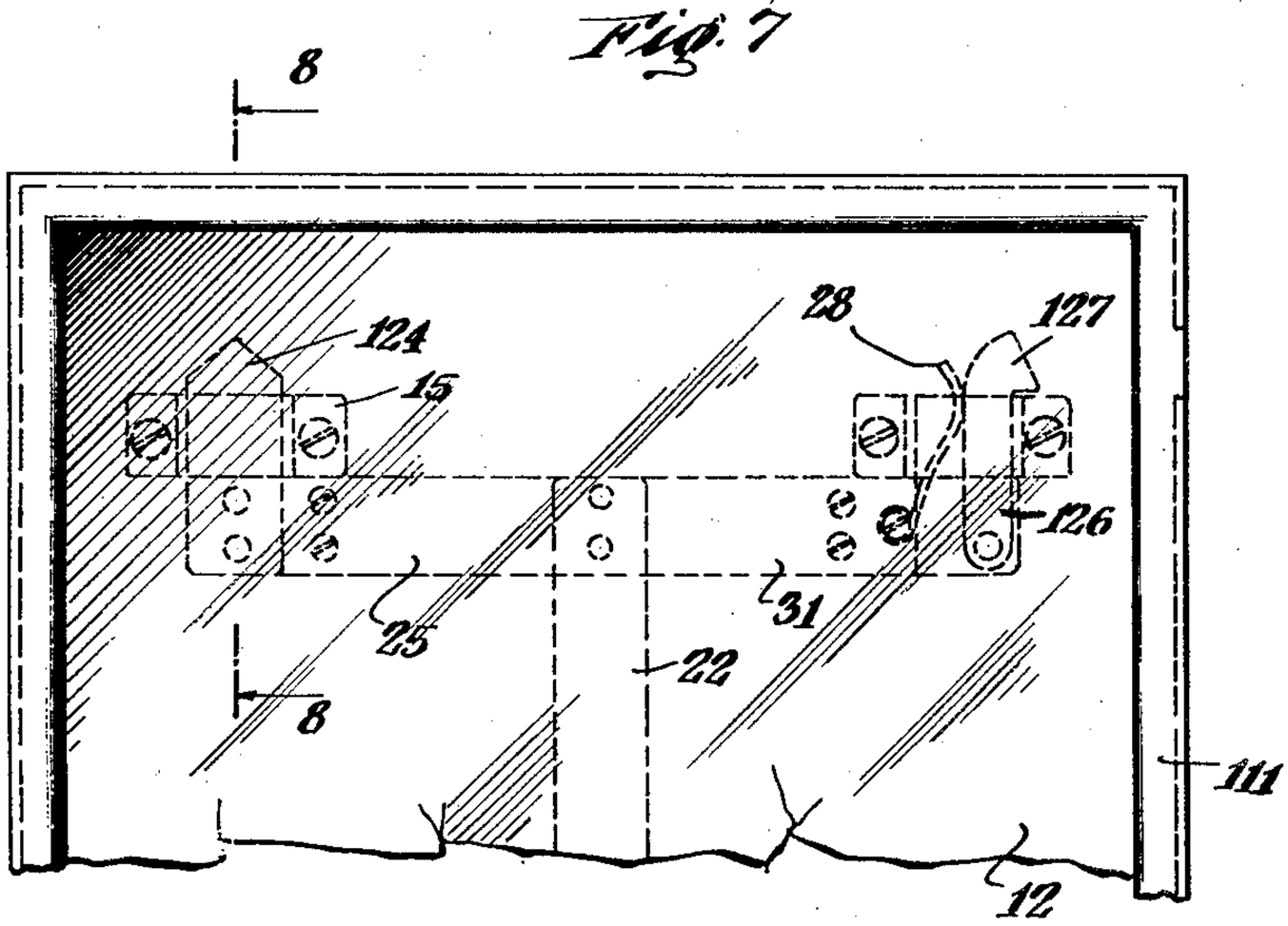


Fig. 12

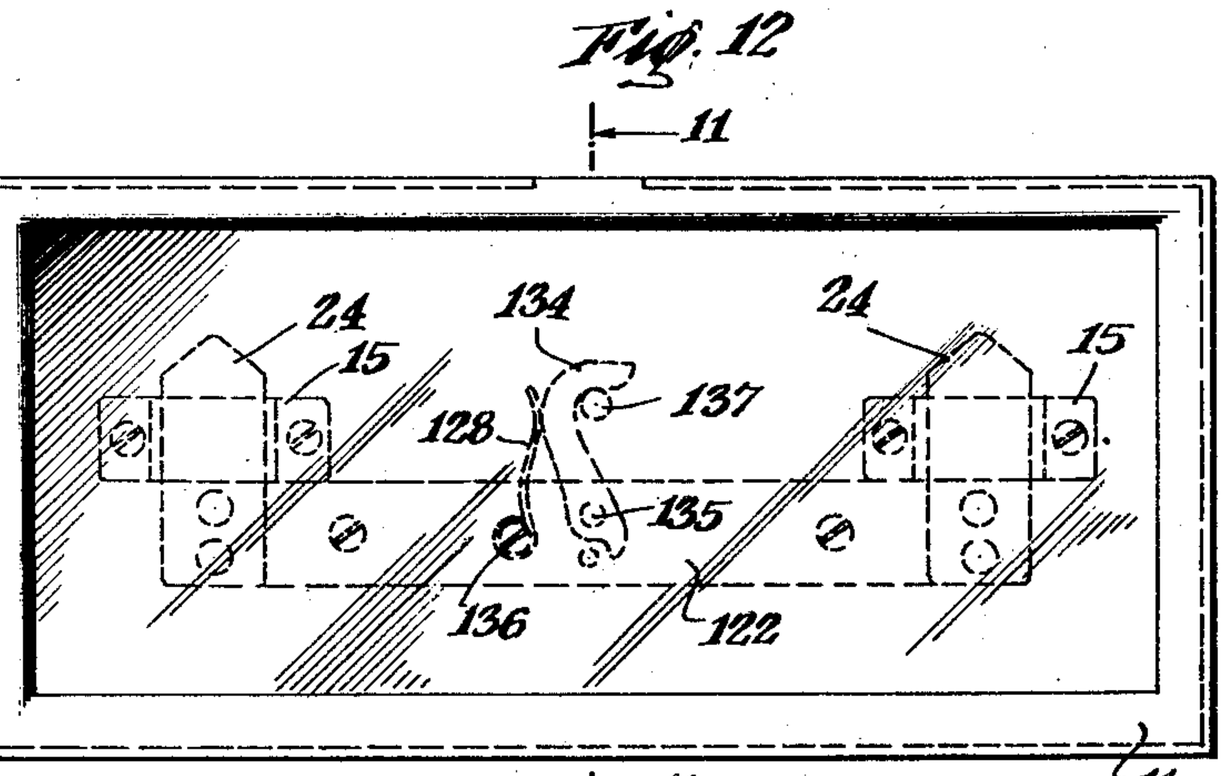


Fig. 11

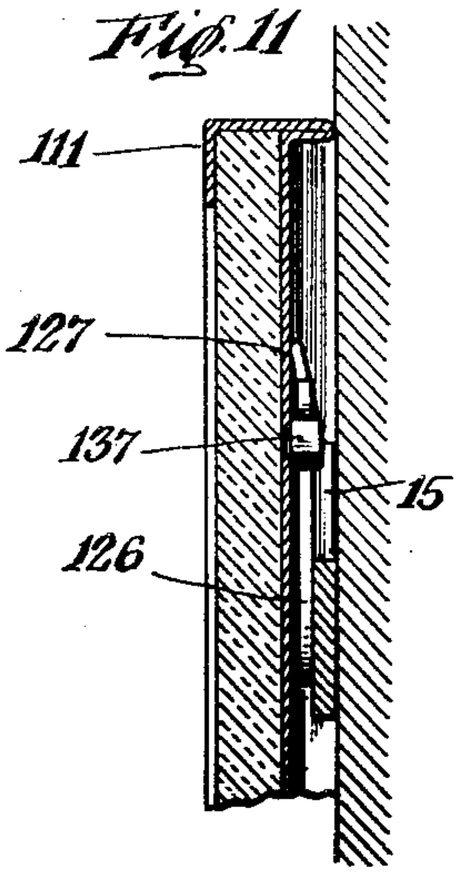
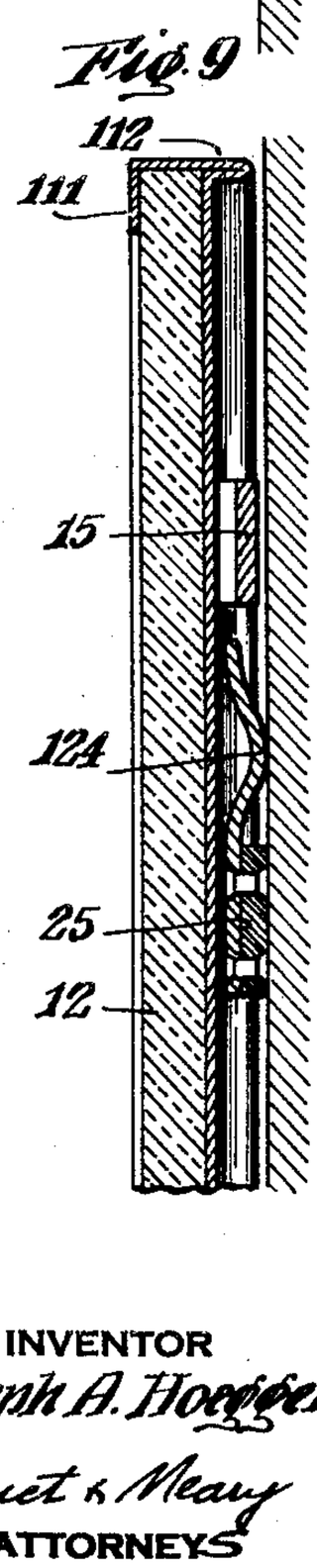


Fig. 10

Fig. 8

Fig. 9



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Patented May 9, 1933 1,908,147

UNITED STATES PATENT OFFICE

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THEFTPROOF HANGER FOR FRAMES

Application filed November 14, 1931. Serial No. 575,032.

My invention relates to an improved hanger for mounting objects such as mirror frames upon a wall or other support, and more particularly to a hanger adapted to lock the objects against unauthorized detachment from their supports.

It is oftentimes desirable to mount mirror frames, picture frames, panels and other objects on a wall or other support in such a way that the supported articles lie flat against their support and also so that the hanging means are concealed by the article. It is also desirable to mount such articles so that they cannot be dismounted and taken away by unauthorized persons.

A feature of my invention is a hanger for articles of the type mentioned in which the hanger locks the article in place on its support.

A second feature resides in a hanger which is concealed by the supported article in such manner that an unauthorized person desiring to dismount the article would experience difficulty in ascertaining the manner in which the article is mounted and locked in place.

Other features and advantages will become apparent on consideration of the following description and claims when read in conjunction with the accompanying drawings in which:

Figure 1 is a front elevation of a mirror embodying the hanger of my invention.

Figure 2 is a view along the line 2—2 of Figure 1 and partly in section to show details of the hanger.

Figure 3 is a top plan view of the mirror, with one corner broken away and sectioned to illustrate the mirror construction.

Figure 4 is a view, partly in section on the line 4—4 of Figure 1, and shows a latching tongue and an associated bracket carried by the mirror.

Figure 5 is a view, partly in section on the line 5—5 of Figure 1, illustrating a supporting tongue and an associated bracket.

Figure 6 is an exploded perspective view of the various parts of my hanger and illustrates their relationship for supporting and locking the mirror in place.

Figure 7 is a front elevation of a mirror embodying a different form of my invention.

Figure 8 is a view on line 8—8 of Figure 7 and partly in section to show details of the hanger.

Figure 9 is a view similar to Figure 8 showing the mirror disengaged from the hanger.

Figure 10 is a detail of the form of my invention shown in Figure 7 showing the unlatching means.

Figure 11 is a view in section showing the latching means.

Figure 12 is a front elevation of a mirror embodying a different form of my invention.

Referring to the drawings in Figures 1 to 5 the numeral 11 designates the frame of an article, such as a mirror 12 which is mounted and locked in place on a wall 13 or other support by the hanger of my invention. In Figures 7 to 11 the numeral 111 designates a different form of frame having a flange 112 extending therefrom to the wall and adapted to fit snugly against the wall to conceal the hanger.

Mounted on the back plate 14 of the mirror are a plurality of brackets 15. Each bracket comprises a metallic strip secured to the plate 14 by fasteners 17 and having a portion 18 spaced from the plate by the portions 20, so that each bracket forms a socket 21.

A plate 22, secured to the wall 13 by suitable fastening means, is provided with a plurality of spaced tongues 24 as in Figures 1 to 5, or 124 as in Figures 7 to 11, adapted to extend into the sockets 21 on the back plate of the mirror, to support the latter on the wall 13. If desired, the tongues 24 or 124 may have individual supporting bases, suitably secured to the wall, and spaced in accordance with the spacing of the brackets 15 on the mirror 12.

However, it is deemed desirable in order to simplify the hanger and facilitate the mounting and alignment thereof to provide a single supporting plate for all the tongues 24 or 124. In the embodiment illustrated the plate 22 is of I-shape, having a tongue adjacent the end of each arm 25 thereof; but it is to be understood that the plate 22 may be of any other shape which is found convenient or adaptable

to the article to be supported. In Figures 1 to 5 I have illustrated the simplest form of tongues 24 each of which is a straight piece of metal extending vertically from the plate 22 and offset from the plane thereof so that the tongues are spaced slightly from the wall 13 when the plate 22 is secured thereto. This offsetting of the tongues 24 from the plate 22 so that they are spaced slightly from the wall 13 insures that the tongues are properly positioned to enter the sockets 21 on the mirror when the latter is placed against the wall and moved downwardly. In Figures 7 to 11 I employ spring tongues 124. These tongues are offset from the plate 22 as in the other form but the tongues 124 are springs having a bend extending from the wall and adapted to engage the brackets 15 and hold the mirror tightly against the wall. The upper portion of tongues 124 flares away from the wall and is spaced from the wall to insure entry of the tongues 124 into the sockets 21 on the mirror when it is placed against the wall and moved downwardly.

At least one of the tongues, such as 26 or 126, is pivotally mounted on the plate 22, while the others are fixed against movement, as by being integral with their respective arms. The pivoted tongue 26 has a nose 27 so that the tongue is in the form of a latch for locking the supported article in place and tongue 126 has nose 127 for the same purpose. This pivoted notched tongue 26 acts like a latch hook and will hereinafter be referred to as the pivoted tongue hook.

Mounted on the back plate of the mirror 12 is a spring 28 which extends into the socket 21 of the bracket 15 which cooperates with the pivoted tongue hook 26 for supporting the mirror. The spring 28 is adapted, when the mirror is assembled with plate 22, to engage the latching tongue hook 26 and move the latter about its pivot 30, so that the nose 27 engages one of the portions 20 of bracket 15 to lock the mirror 12 in place.

If desired, the spring 28 may be mounted on the arm 31 in engagement with the pivoted tongue hook 26 or 126 for biasing the nose 27 or 127 to locking position. However, it is deemed preferable to mount the spring 28 on the mirror back 14 adjacent the corresponding bracket. This arrangement obviates the necessity of providing a stop on the arm 31 to limit the movement of the tongue hook 26 when disassociated from the mirror. The spring is also protected against damage by the bracket 15 forming the socket 21. A still further advantage is that prior to mounting the mirror on plate 22 the tongue hook 26 or 126 may be moved to vertical position to receive the corresponding socket 21 and does not require further attention while mounting the mirror to maintain it positioned to enter the socket. A thin flat tool 32 is provided for unlatching the tongue hook 26. In the modification shown in Figures 7 to 11 in which the frame 111 is provided with the flange 112 a thin flat tool 132 is provided for unlatching the tongue 126, and a slot or notch 133 is provided in the flange 112 so positioned that when tool 132 is inserted it will contact with the tongue 126 for disengagement.

After the plate 22 has been fastened to the wall 13 the mirror is placed against the wall, so that the sockets 21 are located above and in alignment with the tongues on the plate 22. The mirror is then moved downwardly so that the tongues 24 or 124 extend into the sockets 21 to support the mirror, the portions 18 of brackets 15 lying between the tongues and the wall. As the mirror is lowered the spring 28 associated with bracket 15 engages the pivoted tongue hook 26 or 126 and acts to move it on its pivot 30 so that when the mirror is properly positioned the nose 27 or 127 extends laterally above the portion 20 of bracket 15, thus locking the mirror to the supporting plate.

To dismount the mirror the tool 32 is inserted between the back plate 14 and wall 13 and moved to engage the latching tongue 26 and release the nose 27 thereof from engagement with the portion 20 of bracket 15. To dismount the mirror illustrated in Figures 7 to 11 the tool 132 is inserted between the back plate 14 and wall 13 through the notch 133 to engage latching tongue 126 and release the nose 127 thereof from engagement with bracket 15. While the latching tongue is held released the mirror is moved upwardly on plate 14 and the sockets disengaged from the tongues in order that the mirror may be dismounted.

In Figure 12 I show a modification of my invention for use on mirrors of such size that more than two brackets 15 would be undesirable. The use of a pivoted tongue hook such as 26 or 126 would be undesirable because an upward lift on the side of the mirror that was not engaged by latching tongue would disengage that tongue and make possible the disengagement of the latching tongue by a mere shifting of the mirror. In Figure 12 a frame 122 is provided for tongues 24 adapted to fit within the brackets 15 on the back of the mirror. A hook 134 is pivotally mounted on the support 122 at 135. On the back plate of the mirror is a spring 128 fastened by a screw at 136 and a pin 137 is provided on the back of the mirror and so arranged with relation to the brackets 15 that the hook 134 engages pin 137 when the mirror is in place, and the spring 128 engaging the hook 134 holds the hook in place and prevents the removal of the mirror. The hook 134 can be disengaged in a manner similar to the disengagement of the pivoted latching tongue 26 or 126.

It is to be noted that the mirror is locked in place by its own mounting means and, as

a consequence, the construction is simple and may be cheaply manufactured as separate locking devices are unnecessary.

It should also be noted that the simple operation of mounting the mirror on its supporting plate also effects the automatic locking of the mirror to the support. As a result, the mirror is locked without further attention and thus the operation of mounting and locking of the mirror is exceedingly simple.

Further, the mirror when mounted conceals its own mounting means, thus presenting a pleasing appearance. This concealment of the mounting means, which also functions to lock the mirror in place, also decreases the liability that unauthorized persons may dismount and remove the mirror.

While my invention has been described in its preferred form, there are many changes and variations which may be made without departure from the spirit thereof and I desire to include all such changes and variations within the scope of the appended claims.

What I claim is:

1. In combination with a stationary supporting member, a member adapted to be supported thereon; mounting means associated with said members including a plurality of brackets on one of said members and a plurality of tongues on the other of said members adapted to engage said brackets, one of said tongues being adjustable, and means associated with said mounting means for engaging said adjustable tongue for locking said supported member to said supporting, member, said mounting and locking means being concealed from view by the regular confines of the supported member.

2. In combination with a stationary supporting member, a member adapted to be supported thereon; mounting means associated with said members including a plurality of brackets on one of said members and a plurality of tongues on the other of said members adapted to engage said brackets and means associated with one of said brackets for engaging one of said tongues for locking said supported member to said supporting member, said mounting and locking means being concealed from view by the regular confines of the supported member.

3. In combination with a stationary support, a member adapted to be supported thereon; means associated with said member and said support for mounting said member thereon, said means comprising a plurality of brackets carried by said member and a plurality of tongues on said support adapted to engage said brackets; and means associated with one of said tongues and one of said brackets for locking said member to said support, said mounting and locking means being concealed from view by the regular confines of the supported member, said locking means being adapted to be tool operated to become unlocked.

4. In combination with a support, a plate secured thereto and having a plurality of spaced tongues and a hook thereon, said tongues being offset from the plane of said plate and in spaced relation with respect to said support; a supported member; a plurality of brackets secured in spaced relation to said member, said brackets being spaced on said member in accordance with the spacing of said tongues on said plate and being adapted to engage said tongues to mount said member on said plate; and means associated with said hook and one of said brackets for causing said hook to lock said member in place on said plate.

5. Means for mounting a member on a stationary support and locking it against detachment therefrom comprising, a latching hook pivotally secured to said support; a bracket carried by said member and engaging said hook to mount said member on said support; and a spring cooperating with said hook to move the latter into latching engagement with said bracket, said support and mounting and locking means being concealed from view behind the regular confines of the supported member.

6. Means for mounting a member on a stationary support and locking it against detachment, said means including a hook pivotally mounted on said support, a bracket carried by said member and having a socket for receiving said hook to mount said member on said support, said hook being adapted in one position to slide freely in said socket and in another position to enter into locking engagement with said bracket; and a spring extending into said socket for engaging said hook to move the latter about its pivot from said first mentioned position into locking relation with said bracket.

7. In combination with a stationary support, a hook pivotally mounted on said support and offset from the plane thereof; a supported member; a bracket secured to said member and provided with a socket spaced from said member for engaging said hook to mount said member on said support; and means for moving said tongue about its pivot to engage said bracket for locking said member on said support, said support and mounting and locking means being concealed from view behind the regular confines of the supported member.

8. In combination with a stationary support, a hook pivotally mounted on said support and offset from the plane thereof; a supported member, a bracket secured to said member and provided with a socket spaced from said member for engaging said hook to mount said member on said support; and means extending into said socket and engaging said hook for moving the latter about its

pivot into engagement with said bracket for locking said member to said support.

9. In combination with a stationary support, a hook pivotally mounted on said support and offset from the plane thereof; a supported member; a bracket secured to said member and provided with a socket spaced from said member for engaging said hook to mount said member on said support; and means carried by said member for moving said hook into engagement with said bracket for locking said member to said support, said support and mounting and locking means being concealed from view behind the regular confines of the supported member.

10. In combination with a stationary support, a hook pivotally mounted on said support and offset from the plane thereof; a supported member; a bracket secured to said member and provided with a socket spaced from said member for engaging said hook to mount said member on said support; and a spring mounted on said member and extending into said socket for engaging said hook, when said member is mounted on said support, to move said hook about its pivot into engagement with said bracket.

11. In combination with a support, a tongue secured to said support and offset from the plane thereof; an offset hook pivotally mounted on said support; a supported member; a plurality of brackets on said member adapted to engage said tongue and said hook to mount said member on said support; a latching nose on said hook; and a spring cooperating with said hook for causing the nose thereon to engage the bracket associated with said hook for locking said member on said support.

12. In combination with a support, a plate secured thereto; a plurality of tongues on said plate; said tongues being offset from said plate and spaced from said support, a hook pivotally mounted on said support and having a laterally extending nose; a supported member; a plurality of brackets carried by said member, each of said brackets having a portion spaced from said member and defining a socket adapted to receive one of said tongues and said hook for mounting said member on said support; and a spring on said member adjacent one of said brackets and extending into the socket formed thereby for engaging said hook to move the nose thereof into engagement with said bracket.

13. In combination a support, a member adapted to be mounted on said support and having a flange extending therefrom and adapted to be held against the support and to conceal mounted means, mounting means including a bracket mounted on said member and within said flange, a pivoted hook mounted on said support and adapted to engage said bracket to lock said member upon said support and a slot in said flange adapted to receive a tool to disengage said hook from said bracket.

14. In combination a support, a member adapted to be supported thereby having a flange extending therefrom and adapted to be held against the support and to conceal mounting means, a plurality of brackets mounted on said member within said flange and a plurality of spring tongues on said support adapted to engage said brackets and to hold said flange against said support, one of said tongues being pivoted on said support and adapted to engage one of said brackets to lock said member against detachment from said support.

15. In combination with a support a member adapted to be supported thereby, a plurality of brackets on said member and spring tongues on said support adapted to engage said brackets and to hold said member firmly against said support, one of said tongues being pivoted on said support and adapted to engage one of said brackets to lock said member against detachment from said support, said support and mounting and locking means being concealed from view behind the regular confines of the supported member.

16. In combination with a supporting member, a member adapted to be supported thereon, mounting and locking means associated with said members including a tongue carried by the supporting member and offset from the plane thereof, a bracket carried by said supported member and operable to cooperate with said tongue, a catch means mounted on one of said members, a latching means operable to cooperate with said catch means, and a spring operable on said latching means to hold the same in engagement with said catch means whereby a locking engagement is obtained between said supporting member and said supported member.

17. In combination with a supporting member, a member adapted to be supported thereon, mounting and locking means associated with said members including a tongue carried by one of said members, an engaging means cooperating with said tongue carried by the other member, a catch means mounted on one of said members, a latching means operable to cooperate with said catch means mounted on the other of said members, and means operable on said latching means to hold the same in engagement with said catch whereby a locking engagement is obtained between said supported member and said supporting member.

In testimony whereof, I have signed my name to this specification this 9th day of November, 1931.

JOSEPH A. HOEGGER.