

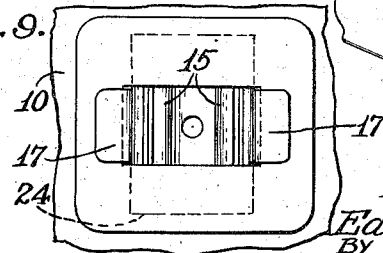
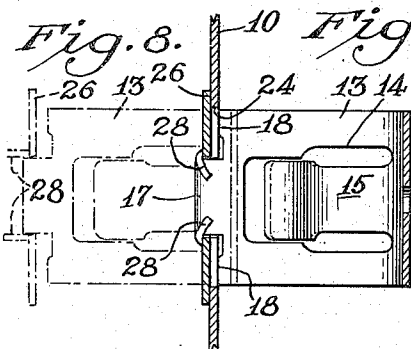
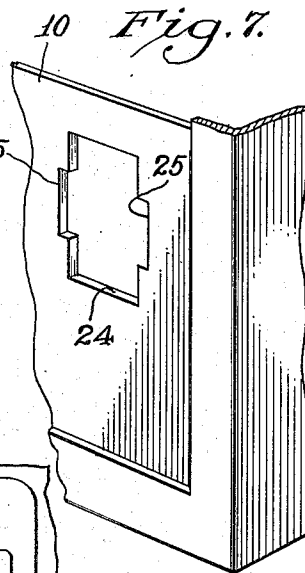
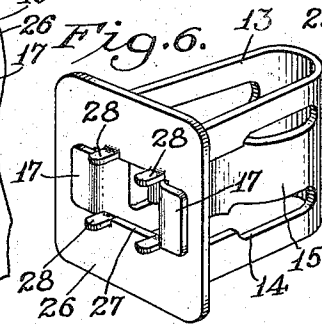
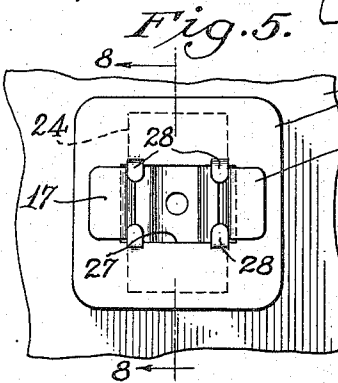
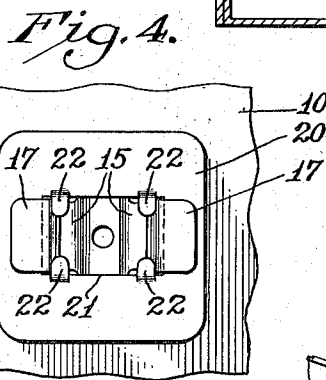
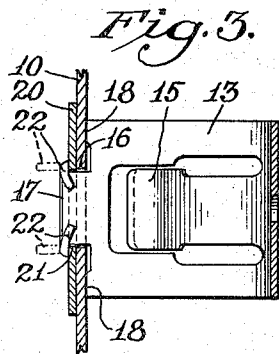
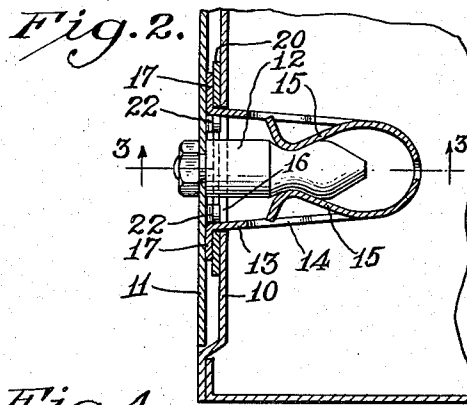
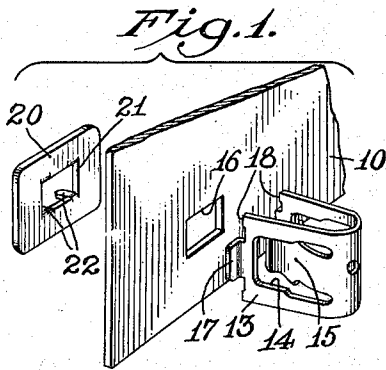
Feb. 29, 1944.

E. BORCHERS

2,342,832

CATCH

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UNITED STATES PATENT OFFICE

2,342,832

CATCH

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Application August 13, 1941, Serial No. 406,617

11 Claims. (Cl. 292—17)

The invention relates generally to catches and more particularly to a spring catch for use on sheet metal cabinets.

The general object of the invention is to provide a novel catch for use with sheet metal cabinets, which is of inexpensive construction and may be assembled on the cabinet by a simple inserting operation.

It is also an object to provide a novel catch primarily retained in place in the wall of a cabinet by its own resiliency and permanently held against accidental dislodgement.

Another object is to provide a novel catch of one-piece construction retained in the wall of a cabinet by its own resiliency and having in connection therewith a face plate provided with readily bendable lugs which prevent removal of the catch.

Still another object is to provide a novel catch adapted to be mounted in the wall of a sheet metal cabinet and retained therein by its own resiliency, the catch being constructed so that it may be inserted in place from the front face of the wall.

Other objects and advantages will become apparent from the following description taken in connection with the accompanying drawing, in which:

Figure 1 is a perspective view of a catch embodying the features of the invention, with parts thereof disassembled.

Fig. 2 is a horizontal sectional view of the catch shown in Fig. 1 with the catch assembled in the cabinet and the strike in retaining relation with the catch.

Fig. 3 is a sectional view taken on the line 3—3 of Fig. 2.

Fig. 4 is a view looking at the face of the wall in which the catch is inserted, with the catch mounted therein.

Fig. 5 is a view similar to Fig. 4 but of a modified form of catch constructed so that it may be inserted from the front.

Fig. 6 is a perspective view of the catch shown in Fig. 5.

Fig. 7 is a perspective view showing the aperture in the wall of the cabinet adapted to receive the catch shown in Fig. 5.

Fig. 8 is a sectional view taken on the line 8—8 of Fig. 5.

Fig. 9 is a view similar to Figs. 4 and 5 but of another modified form of catch.

A catch embodying the features of the invention comprises generally a strip of resilient sheet metal bent generally into the shape of a U. In-

tegral with the arms of the U are a pair of strike-receiving jaws. Preferably such jaws are formed by slitting the arms of the U and bending portions formed thereby inwardly into opposed relation between the arms. The catch is adapted to be secured to the wall of a cabinet by having end portions of the arms inserted through an aperture in the wall. Such aperture provides an opening through which a strike may be inserted for engagement with the jaws. The resiliency of the catch holds it in place in the aperture, and to prevent the catch from being sprung so that it could fall out of the aperture, means is provided for preventing the jaws from springing, which means is held in place by the catch itself.

In the drawing I have shown for purposes of illustration fragmentary parts of a cabinet comprising a front wall 10 on which the catch is mounted and a door 11 adapted to carry a strike 12 of well-known form. The strike is adapted to pass through an aperture in the wall 10, upon closing the door, and to have its inner end engaged and retained by the catch.

The preferred embodiment of the invention shown in Figs. 1 to 4, inclusive, comprises a strip 13 of resilient sheet metal preferably bent generally into the form of a U. Each arm of the U is slit as at 14 to provide portions adapted to be bent inwardly between the arms of the U in opposed relation to provide a pair of strike-receiving jaws 15.

The catch is adapted to be inserted in an aperture in a wall of a cabinet such as the front wall 10, and to be retained therein by the resilience of the two arms of the U. To this end, the front wall 10 is provided with an aperture 16, preferably rectangular, through which the strike 12 may be inserted for engaging the jaws 15. The aperture 16 is of less height than the width of the arms 13 but is of sufficient height to permit passage therethrough of a pair of tongues 17 formed on the ends of the arms 13 and bent laterally outward. To insert the catch, the arms of the U are pinched together sufficiently to permit the tongues 17 to pass through the aperture 16. After the tongues have been passed through the aperture 16, the arms of the U are permitted to spring apart so that the tongues 17 lie flat against the front face of the wall 10 at the respective sides of the aperture, and the portions of the ends of the arms at either side of each tongue, indicated at 18, abut against the inner or rear face of the wall 10. Thus the catch by its own resilience tends to remain in place, and when the strike is inserted or when it is withdrawn, the spreading of the jaws

thereby increases the tendency of the catch to remain in place.

Normally the resilience of the jaws is sufficient to retain the catch in the wall 10. However, should one of the jaws of the catch be inadvertently struck, the catch might be knocked out of its assembled relation with the wall. Thus, in the case of use of this catch with a kitchen cabinet, which is often dusted, the housewife's dust cloth might catch on one of the tongues 17 and snap it out of place so that the catch would be loosened from the wall.

To prevent such an occurrence, I provide means for permanently holding the catch in place. Preferably such means is held in place by the tongues 17 and is provided with readily bendable portions adapted to prevent inward springing of the tongues 17. In its preferred form such means comprises a rectangular plate 20 having an aperture 21 substantially the size of the aperture 16 and adapted to lie flat against the front face of the wall 10 with the two apertures 16 and 21 in alignment. When the tongues 17 are inserted through the aperture 16, they are likewise inserted through aperture 21 in the plate 20. With the catch in place, the side portions of the plate 20 thus underlie the tongues 17.

Formed from the metal punched from the aperture 21 are readily bendable portions comprising lugs 22 extending from the upper and lower marginal edges of the aperture 21. When the plate is first formed, such lugs extend forwardly so that the tongues 17 may be inserted through the aperture 21. After the catch and plate 20 are in place with the tongues 17 sprung laterally to overlie the plate, the lugs 22 are then bent into the aperture 21 between the tongues 17 so as to hold them against inward springing. The catch is thus permanently held in place so that it cannot be accidentally snapped out of position.

The modified form of catch shown in Figs. 5 to 8, inclusive, is constructed so that it may be inserted from the front of the wall 10. In the construction of certain cabinets, the rear face of the wall 10 is not accessible because of the cabinet structure. In this modified form the catch itself is of the same construction as shown in Figs. 1 to 4, inclusive, and is provided with the same laterally extending tongues 17.

The aperture in the wall 10, indicated at 24, is of sufficient height to permit the passage therethrough of the arms of the U-shaped catch member so that the whole catch may be inserted from the front. The aperture 24 is so shaped that after the catch has been inserted it may spring laterally to permit the ends of the arms of the U to abut the rear face of the wall 10. To this end, the aperture 24 is provided at each side thereof with notches 25 of a width sufficient to receive the tongues 17 and permit them to extend therethrough.

In conjunction with this structure, I may use a rectangular face plate 26 having an aperture 27 of a height sufficient to receive the tongues 17. To assemble the catch, the arms of the U are squeezed together to permit the tongues 17 to be inserted through aperture 27, as shown in Fig. 6. The catch is then pushed inwardly through the aperture 24 and when fully inserted, the arms of the U snap laterally so that the tongues 17 extend through the notches 25 and the end portions of the arms of the U will abut against the rear face of the wall 10 at the respective sides of the aperture 24. To hold the catch in place and prevent the tongues 17 from springing in-

wardly, I provide a plurality of lugs 28, similar to the lugs 22, which may be bent in between the tongues 17 to prevent their inward springing. Thus the tongues are held in the notches 25 and the end edges of the arms of the U are held against the rear face of the wall 10 and are prevented from springing toward each other where they could slip through the aperture 24.

In Fig. 9 I have shown another modified form of the construction which is similar to Figs. 5 to 8, inclusive, except that the lugs 28 have been omitted. However, the structure shown in this figure has the advantage of being able to be inserted into the wall from the front face thereof.

From the foregoing, it will be apparent that I have provided a catch which is of one-piece construction having strike-receiving jaws formed integrally from the strip of metal constituting the catch proper. The catch is so constructed that it may be inserted into the wall of a cabinet merely by squeezing the arms of the U-shape form thereof together to permit passage of their end portions through the strike-receiving aperture. When so inserted, the resiliency of the catch causes the arms of the U to spread laterally and thereby be retained in place in the wall. By utilizing a face plate of the character herein shown, provided with means such as the lugs 22, the catch may be permanently retained without danger of its being accidentally snapped out of position.

In the form of device shown in Figs. 5, 6, 7, and 8, as well as the device shown in Fig. 9, the aperture in the wall is of sufficient size to permit the catch to be inserted from the front. After the catch has been snapped into place, the arms thereof spread laterally so that the ends thereof abut against the rear face of the wall. The face plate with its lugs 28 holds the catch against inward springing and thus prevents it from accidentally being withdrawn through the aperture in the wall.

I claim as my invention:

1. A catch of the character described comprising, in combination, a strip of spring metal bent into a U-shape with portions of each arm of the U shaped for engagement by a strike, the ends of the arms of the U being bent outwardly for insertion through an aperture in the cabinet wall and adapted to overlie the front face thereof, and an apertured face plate lying between the outwardly bent portions of the arms and the front face of the wall with the arms extending therethrough, said face plate being provided with readily bendable lugs extending into the aperture in the plate to prevent inward springing of the arms of the U.

2. A catch of the character described comprising a U-shaped member of spring metal having strike-receiving jaws formed from the respective arms of the U, the ends of the arms having outwardly bent tongues adapted to extend through an aperture in the cabinet wall, and a face plate having an aperture substantially coextensive with the aperture in the cabinet wall and adapted to lie against the front face of the wall under said tongues, said face plate having a plurality of readily bendable lugs extending into the aperture of the plate to prevent movement of the tongues toward each other.

3. A catch of the character described comprising a U-shaped catch having strike-receiving jaws formed from the respective arms of the U, the ends of said arms being provided with outwardly bent tongues insertable through an aperture in

the cabinet wall to overlie the front face thereof, and means interposed between said tongues and the front face of said wall for retaining said catch in place and having readily bendable portions adapted to be bent into the space between said tongues to prevent movement thereof toward each other.

4. A catch of the character described comprising, in combination, a U-shaped member of spring metal having portions of the arms of the U bent to provide a pair of strike-receiving jaws, the ends of the arms of the U being shaped to interfit with and be resiliently retained in place in an aperture in the cabinet wall, and means retained in place by said ends of the arms and provided with readily bendable lugs bendable into position to prevent movement of the arms toward each other after the catch is in place.

5. A catch of the character described comprising, in combination, a U-shaped member having strike-receiving jaws formed integrally from the arms of the U with portions of the arms extending through an aperture in the wall of a cabinet and springing laterally to hold the member in place, and means held in place by the engagement of said arms with the wall and having readily bendable means for holding the arms of the U in their laterally sprung position.

6. A catch of the character described comprising a U-shaped member having strike-receiving jaws formed from the arms of the U, said arms having outwardly bent tongues of less width than the arms and insertable through an aperture in the cabinet wall to overlie the front face thereof, said aperture being of less width than said arms, and a face plate having an aperture substantially equal in width to the width of said tongues with side portions of said face plate underlying said tongues, said face plate having a plurality of lugs formed from the metal punched from said aperture and readily bendable into the aperture in said plate to prevent movement of said tongues toward each other.

7. The combination with a catch of the character described comprising a U-shaped member of spring metal having integral strike-receiving jaws formed from the arms of the U, the ends of the arms having laterally bent tongues of less width than the arms, said catch being insertable through an aperture in the cabinet wall having a width not less than the width of the arms with notches at the sides thereof to receive said tongues whereby the catch may be inserted from the front face of the wall and the arms may spring laterally so that the ends of the arms abut against the rear face of the wall at each side of the aperture and the tongues extend through said notches to overlie the front face of the wall, of a face plate provided with an aperture substantially equal in width to the width of said tongues and held by said tongues in place against the front face of said wall, said face plate covering the aperture in the wall except for the aperture in the plate.

8. The combination with a catch of the character described comprising a U-shaped member having a pair of strike-receiving jaws formed integrally from the arms thereof, said arms having laterally bent tongues at their ends, the cabinet wall having an aperture of sufficient width for the insertion of the catch therethrough with notches at the side of said aperture of a width to receive said tongues whereby said catch may be inserted through said aperture and the arms may spring laterally with the tongues extending through said notches and overlying the front face of the wall, of a face plate having an aperture of a width to receive said tongues and held under said tongues against the front face of said wall, said face plate covering the aperture in the wall except for the aperture in the plate.

9. The combination with a catch of the character described comprising a U-shaped member having a pair of strike-receiving jaws formed integrally from the arms of the U, said arms having at their ends laterally bent tongues of less width than the arms, said member being adapted to be inserted through an aperture in the wall of the cabinet with the aperture provided with notches at its side of a width to receive said tongues, of a face plate having an aperture of a width substantially the same as said notches and held against the front face of the wall by said tongues and covering the aperture in the wall except for the aperture in the plate, said face plate having lugs bendable into the space between said tongues to retain the latter in said notches whereby the catch is permanently retained in said wall.

10. The combination with a catch of the character described comprising a U-shaped member having strike-receiving jaws formed integrally from the arms thereof and insertable through an aperture in the wall of a cabinet, said aperture being provided with notches at its side and said arms being provided with tongues adapted to extend through said notches when the arms are inserted through the aperture and spring laterally, of a cover for said aperture held in place by said tongues and having readily bendable means positioned to prevent spring of the arms toward each other.

11. A catch of the character described comprising, in combination, a U-shaped member having strike-receiving jaws formed integrally from the arms of the U and insertable from the front through an aperture in the wall of a cabinet so that said jaws are located at the rear of said wall, the aperture being shaped to permit the arms of the U when fully inserted to spring laterally and thereby prevent forward movement of the member, and means held in place by portions of said arms and provided with readily bendable portions for holding the arms of the U in their laterally sprung position.

EARL BORCHERS.

CERTIFICATE OF CORRECTION.

Patent No. 2,342,832.

February 29, 1944.

EARL BORCHERS.

It is hereby certified that the name of the assignee in the above numbered patent was erroneously described and specified as "American Cabinet Hardware Corporation" whereas said name should have been described and specified as --American Cabinet Hardware Corporation. Rockford, Illinois, of Rockford, Illinois, a corporation of Illinois--; as shown by the record of assignments in this office; page 3, first column, line 31, claim 6, for the word "jams" read --jaws--; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 6th day of June, A. D. 1944.

Leslie Frazer

(Seal)

Acting Commissioner of Patents.