

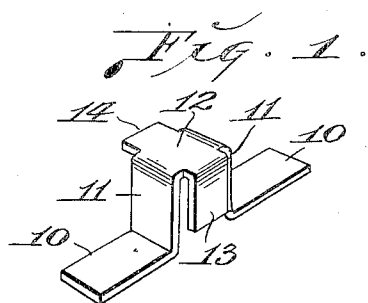
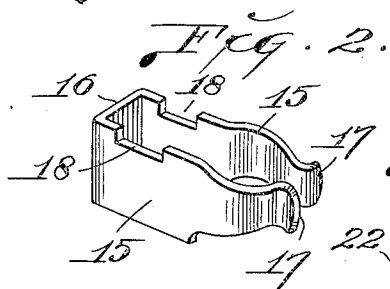
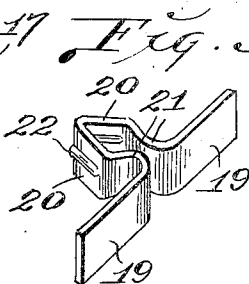
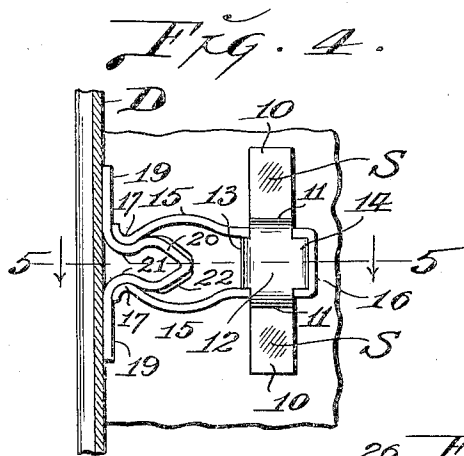
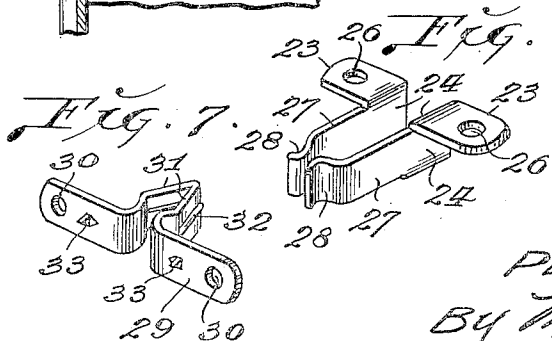
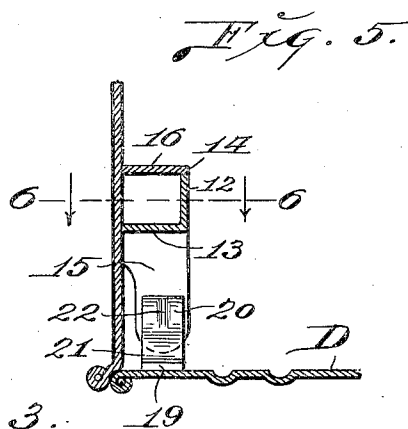
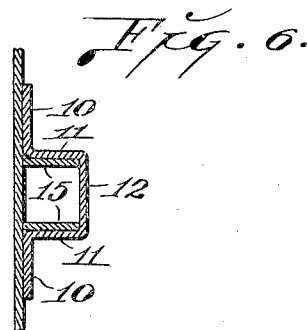
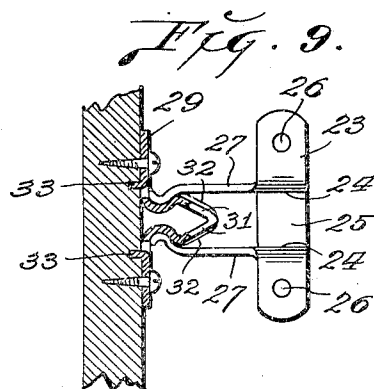
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P. D. WEST

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DOORCATCH

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DOORCATCH

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2 Claims. (Cl. 292—76)

My invention relates to a door catch and the principal object of my invention is, to provide a catch of relatively simple, practical and inexpensive construction and which is especially designed for use on cabinets, cupboards, desks and the like, that are constructed wholly or partially of metal and said catch comprising a short head or finger that is secured to the inner face of the door or other swinging structure and which, when the door is closed, engages between a pair of resilient fingers that form a part of a keeper that is permanently secured to one of the side walls or a shelf or partition of the cabinet or cupboard.

Further objects of my invention are, to provide a door catch of the character referred to that is constructed so that it may be conveniently secured to the cabinet or cupboard wall and to the door thereof by spot welding, thereby eliminating the necessity for the use of screws, bolts or similar fastening devices and further, to provide the head or finger that passes between the resilient arms of the keeper with contact ribs which materially reduces the friction between the cooperating parts of the catch as the head or finger passes between the ends of the resilient arms of the keeper.

With the foregoing and other objects in view, my invention consists in certain novel features of construction and arrangements of parts that will be hereinafter more fully described and claimed and illustrated in the accompanying drawing in which:

Fig. 1 is a perspective view of the base portion or frame that carries the resilient arms of the keeper and which base portion or frame is secured to the wall or partition of the cabinet or cupboard.

Fig. 2 is a perspective view of the keeper member that is supported by the base or frame and which carries the resilient arms.

Fig. 3 is a perspective view of the catch member that is secured to the door and which is provided with a head or finger that is engaged by the resilient arms when the door is closed.

Fig. 4 is an elevational view of the catch applied to the side wall and door of a metal cabinet or cupboard.

Fig. 5 is a horizontal section taken on the line 5—5 of Fig. 4.

Fig. 6 is a vertical section taken on the line 6—6 of Fig. 5.

Figs. 7 and 8 are perspective views of the two parts of a catch constructed in accordance with my invention and of the type that is adapted to be secured to a cupboard or cabinet by screws or like fastening devices.

Fig. 9 is a plan view partly in horizontal section of the form of catch illustrated in Figs. 7 and 8 and showing the same applied for use.

Referring by numerals to the accompanying

drawing and particularly to the form of catch illustrated in Figs. 1 to 6 inclusive and which form of catch is especially designed to be used on metal cupboards or cabinets and their doors, 10 designates a strap of metal having its intermediate portion bent to form an inverted U-shaped member comprising parallel legs 11 that are disposed at right angles to the end portions of the strap and the intermediate plate 12 that connects the upper or outer ends of the legs 11 occupies a plane parallel with the end portions 10 of the strap.

Depending from the front edge of plate 12 is an integral tongue 13 and projecting outwardly from the opposite edge of plate 12 is a narrow lip or flange 14.

The structure just described provides means for firmly securing the resilient arms of the catch to the cupboard or cabinet and by forming the parts separately, the member having the resilient arms and which is illustrated in Fig. 2, may be formed of resilient metal and the base member or frame illustrated in Fig. 1 may be formed of non-resilient metal.

Thus when the base member or frame is secured to the wall of the cabinet or cupboard, by spot welding the end portions of strap 10 to the cabinet wall, the temper or resiliency of the metal in the spring arms of the keeper, will not be affected.

The resilient member of the keeper comprises a pair of spaced substantially parallel arms 15 connected at their rear ends by an integral transverse wall 16. The forward portions of the resilient arms are curved inwardly toward each other and the free ends of said arms are spaced a slight distance apart, and their terminal portions are curved outwardly, as designated by 17, in order to readily permit the projecting head or finger of the door carried by the end of the catch to enter and pass between the free ends of the resilient arms.

Formed in the upper edges of the rear portions of the arms 15, are shallow notches 18 for the accommodation of the end portions of plate 12 when the two parts of the keeper are properly assembled.

When the resilient arms are applied to the frame that includes the metal strap 10, the legs 11 overlie the outer faces of the rear portions of arms 15, the narrow lip or flange 14 fills the space between the rear ends of the notches 18 and the plate or wall 16 and the plate or tongue 13, extends downwardly between the intermediate portions of the arms 15.

With the parts thus assembled, the keeper is permanently secured to the wall of a metal cabinet, by spot welding the end portions of strap 10 directly to the metal wall and the points of which spot welding is designated by S (Fig. 4).

The member of the catch that is carried by the door and which is engaged by the ends of the resilient fingers is illustrated in Fig. 3 and said member comprises a strap 19 of non-resilient metal, the intermediate portion of which is bent outwardly at right angles so as to form a head or finger that is substantially diamond shape in plan view.

The outer portion of this head or finger comprises a pair of inclined walls 20, which diverge rearwardly and those portions of the strap immediately to the rear of said diverging walls, are bent inwardly toward each other, as designated by 21, to form a curved neck that is shaped so as to receive the curved terminal portions 17 of the resilient fingers 15.

In order to minimize the friction between the projecting head or finger and particularly the diverging walls 20 and the curved ends of the resilient arms 15, at the time the head or finger passes between the ends of said arms, longitudinally disposed ribs 22 are formed on the external faces of the walls 21. When the door is closed these ribs bear against the inner faces of the inwardly curved ends 17 of the resilient arms without undue friction until the ends of said arms pass into the curved pockets to the sides of the curved walls 21.

The strap 19 is secured to the inner face of the door D of the cabinet by spot welding the end portions of said strap directly to the door.

The modified form of catch illustrated in Figs. 7, 8 and 9 is especially designed for use on cupboards, cabinets and the like that are formed of wood and this form of device includes a keeper that is composed of a metal strap 23 having its intermediate portion bent at right angles to form a substantially U-shaped member composed of spaced parallel walls 24 and a connecting plate 25.

The ends of strap 23 are provided with apertures 26 for the reception of fastening devices, preferably screws.

Projecting from the edges of the parallel plates 24 on one side, are spaced resilient arms 27, the terminal portions of which are bent inwardly toward each other and thence outwardly, as designated by 28.

The keeper thus constructed is secured to the inner face of the side wall of the cabinet or to the underside of a shelf therein.

The member that is received by the ends of the resilient arms 27 and which is secured to the inner face of the door of the cupboard or cabinet comprises a metal strap 29 provided in its end portions with apertures 30 for the reception of screws or other attaching devices and the intermediate portion of said strap is bent outwardly to form a head or finger that is substantially diamond shape in plan view. This head or finger comprises a pair of diverging walls 31, on the outer faces of which are formed short longitudinally disposed bearing ribs 32, which strike against the intumed ends 28 of the arms 27 when the door is closed, thus minimizing friction between the contacting parts.

Stamped outwardly from the strap 29, between

the apertures 30 and the head or finger that projects from the center of said strap, are prongs 33, which may be used to mark the location of strap 29 on the door so as to insure proper location of said strap with respect to the keeper having the resilient arms 27.

After the strap 23 is secured to the partition within the cupboard or cabinet, the head or finger on strap 29 is positioned between the ends of the resilient arms 27 in the same position that the parts occupy when properly associated and the door is now closed and pressed against strap 29 and the projecting prongs 33 will indent the door so as to provide a guide for the correct applying and setting of the strap 29 to the door.

A particular advantage of my improved door catch and especially the form of catch illustrated in Figs. 1 to 6 inclusive, is that the keeper of the catch or that part having the resilient arms, may be readily secured to metal cabinets or cupboards by spot welding without affecting the temper or resiliency of the spring arms that hold the door carried member of the catch and further, the provision of contact ribs on the door carried member materially reduces friction between the two parts of the catch when the door is closed.

Thus it will be seen that I have provided a door catch that is relatively simple in construction, inexpensive of manufacture and very effective in performing the functions for which it is intended.

It will be understood that minor changes in the size, form, and construction of the various parts of my improved door catch may be made and substituted for those herein shown and described without departing from the spirit of the invention, the scope of which is set forth in the appended claims.

I claim as my invention:

1. In a cupboard or cabinet door catch, a metal strap having its intermediate portion bent to form a U-shaped member and a strap of resilient metal bent to form a pair of spaced substantially parallel arms that are provided in their upper edges with notches for the reception of the ends of the plate that connects the ends of the legs of said U-shaped member, the connected ends of which arms are disposed within and interengaged with the U-shaped intermediate portion of said first mentioned strap.

2. In a cupboard or cabinet door catch, a strap having its intermediate portion bent to form a substantially inverted U-shaped structure, a strap of resilient metal bent to form a pair of spaced substantially parallel arms, the free ends of which arms are bent toward each other, the connected ends of which resilient arms are positioned within and interengaged within the inverted U-shaped intermediate portion of said first mentioned strap the upper edges of said parallel arms being notched for the accommodation of the ends of the intermediate portion of said inverted U-shaped structure and an integral flange projecting from the inverted U-shaped portion of said first mentioned strap, which flange is positioned between the rear portions of said resilient arms.

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