

June 14, 1949.

R. A. STONE

2,473,181

CATCH

Filed Dec. 19, 1945

Fig. 1.

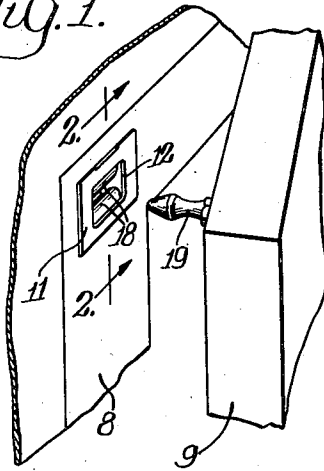


Fig. 2.

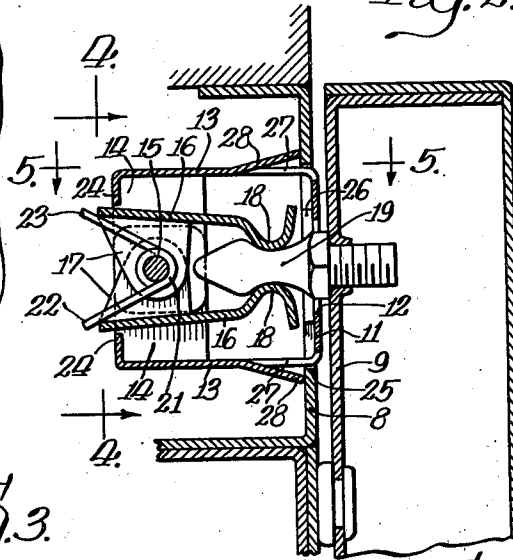


Fig. 3.

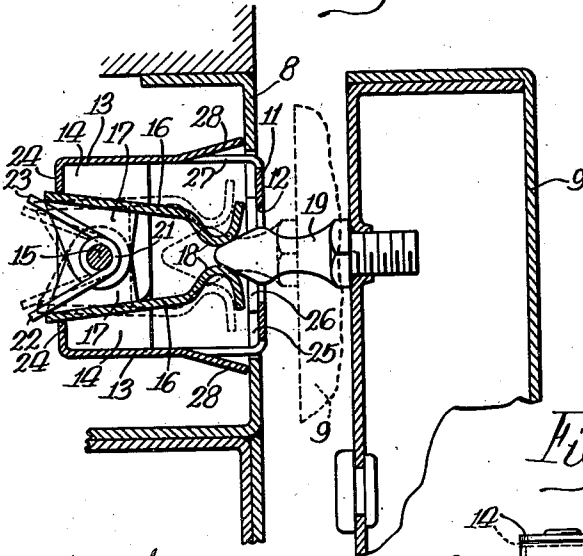


Fig. 4.

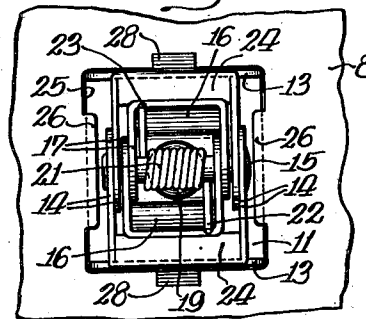


Fig. 5.

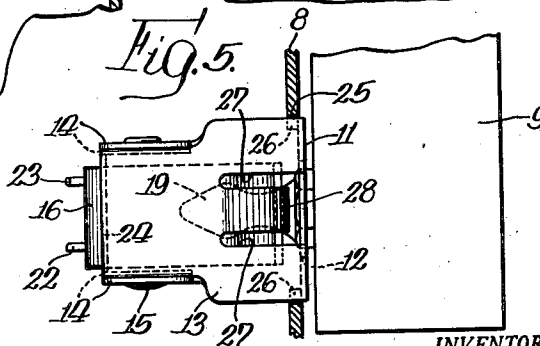
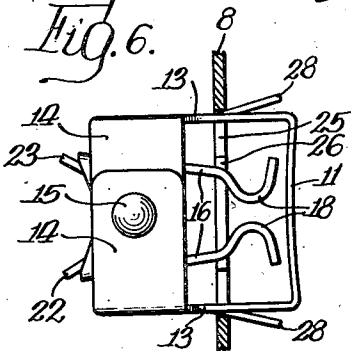


Fig. 6.



INVENTOR.

Roy A. Stone,
BY Craig Wilson
Atty.

UNITED STATES PATENT OFFICE

2,473,181

CATCH

Roy A. Stone, Rockford, Ill., assignor to National Lock Company, Rockford, Ill., a corporation of Delaware

Application December 19, 1945, Serial No. 636,013

4 Claims. (Cl. 292—18)

1

This invention relates to catches of the type adapted for use on furniture for holding the doors of kitchen cabinets and the like in closed position.

The embodiment of my invention herein shown as illustrative is particularly designed for mounting on metal walls, such as a sheet metal wall of a metal cabinet. A primary purpose of my invention is the provision of a latch which may be mounted by simply inserting it through an opening in the wall, the base of the latch being designed to extend outside the confines of such opening, so that projection of the latch through the opening is limited by the base which also covers the holding jaws but has an opening through which a strike may be projected into engagement with said jaws. Retraction of the latch from the wall opening is prevented by spring tangs which automatically engage with the inner face of the wall and lock the latch in mounted position.

Another purpose of my invention is to provide a catch, the pivotally mounted holding jaws of which will be spring pressed into clamping or holding relation to snugly grasp and retain a strike introduced between them and which will be centered by the body walls in position to receive the strike.

Another purpose of my invention is the provision of a catch which can be economically assembled and quickly and easily mounted.

Further purposes and advantages of the invention will become apparent as the same becomes better understood by reference to the following description when considered in connection with the accompanying drawing.

Referring to the drawing,

Fig. 1 is a fragmental perspective view of a cabinet structure equipped with my invention;

Fig. 2 is an enlarged vertical view taken on the line 2—2 of Fig. 1;

Fig. 3 is a sectional view similar to Fig. 2, but with the parts in changed positions;

Fig. 4 is a rear elevation looking toward the right on the line 4—4 of Fig. 2;

Fig. 5 is a plan view on the line 5—5 of Fig. 2; and

Fig. 6 is a side elevation of the catch illustrating the method of mounting it.

Referring to the drawing more in detail, reference character 8 indicates generally the surrounding walls of a door opening in a sheet metal cabinet, such as a kitchen cabinet or storage cabinet, such opening being adapted to be closed by a hollow sheet metal door 9.

Catches having the holding jaws between which

2

a strike is projected when the door is closed, formed integrally with the body or frame structure of the catch have been used to a considerable extent, but it has been found that under prolonged use the flexing of the jaws has a tendency to induce metal fatigue which results in breakage of the jaws. My improved catch embodies jaws structurally independent of the body or frame of the catch. Such jaws are pivotally mounted on the body and spring pressed into operative position, with the result that great durability is attained and the holding effect is not diminished by prolonged use.

The body or frame structure of my improved catch is struck up from a piece of sheet metal which is shaped to provide a base 11 having an aperture 12. Walls 13 integral with the base project therefrom in parallelism substantially perpendicular to the base, and the free end portions of such walls are provided with lateral extensions which are bent into opposed relation to provide overlapping projections 14. These projections are connected together to form a rigid structure by a riveted pintle 15.

Upon this pintle is pivotally mounted a pair of opposed clamping or holding jaws 16 having in-turned ears 17 journaled on the pintle, and opposed curved holding portions 18 near the free ends of the jaws adapted to clampingly engage and yieldingly hold an interposed strike 19 projecting from the inner face of the door 9 through the opening 12 in the base which serves to cover and protect the jaws.

The jaws are urged into clamping relation by a coiled spring 21 surrounding the pintle with its ends 22 and 23, respectively, engaging the inwardly projecting ends of the jaws. The approach of the clamping ends of the jaws is limited by engagement of the inner projecting ends thereof with flanges 24 turned inwardly from the walls 13 which also serve to center the jaws for the reception of the strike.

In mounting my improved catch on a cabinet or the like, the wall 8 is provided with an opening 25 proportioned to permit the projection of the catch structure therethrough, but having opposed inwardly extending flanges 26 forming abutments which prevent the passage of the base 11 through the opening. The walls 13 of the catch frame structure are longitudinally slotted, as indicated at 27, to provide tangs 28 which are sprung outwardly and, due to their resiliency, tend to remain in the extended position illustrated in Figs. 2, 3, 4 and 6.

In mounting the catch the body thereof is pro-

3

jected through the opening 25 from the outside, as shown progressively in Figs. 6 and 3, respectively, the tangs 28 being pressed inwardly into the planes of the walls 13 during the insertion until the ends thereof have passed through the opening, whereupon they spring outwardly into the position shown to prevent retraction of the body and hold the same in mounted position. It will be apparent that the catch is firmly held by engagement of the base with the outer faces of flanges 26 of the cabinet wall and the engagement of the tangs 28 with the inner face of the cabinet wall. The strike 19, of well known construction, is mounted on the door by being threaded into a suitably placed opening or otherwise attached thereto.

It should be apparent from the foregoing that I have provided a catch having clamping jaws which are structurally independent of and pivotally mounted on the body or frame structure of the catch, so that they are not subject to fatigue and weakening in use, as are jaws of spring metal formed integrally with the body. A long life coiled spring urges the jaws into clamping relation while the jaws are centered with respect to the strike by engagement of their inwardly projecting ends with the guiding flanges 24 on the body.

The details illustrated and described may be varied within wide limits without exceeding the scope of my invention as defined in the following claims.

I claim:

1. A catch, comprising a sheet metal frame structure including a base, a pair of side walls projecting from said base and formed at their outer ends to provide opposed overlapping projections, a pintle extending through said overlapping projections, a pair of holding jaws pivotally mounted on said pintle and extending between said side walls toward said base, and a spring mounted on the pintle and engaging said jaws whereby said jaws are yieldingly held in position to retain an interposed strike.

4

2. A catch, comprising a sheet metal structure including a base provided with an opening and a pair of side walls struck up from said base, said structure being adapted to be mounted in a wall opening, the side walls of said structure being formed at their outer ends to provide overlapping projections, a pintle connecting said projections, a pair of clamping jaws pivoted on said pintle and extending toward said base opening, and a spring on the pintle arranged to urge said jaws into clamping relation to retain an interposed strike projected through said base opening.

3. A catch, comprising an integral sheet metal structure formed to provide a perforated base, a pair of side walls and overlapping extensions from said side walls, a pintle extending through said overlapping extensions, a pair of clamping jaws pivotally mounted on said projections with the clamping ends thereof disposed in proximity to said base, and spring means for urging the clamping ends of said jaws toward each other.

4. A catch, comprising a sheet metal structure adapted to be mounted in an opening and consisting of a base provided with an opening, side walls, and overlapping projections from said side walls, a pair of clamping jaws, a pintle extending through said projections and upon which said jaws are pivotally mounted in opposed relation, spring means for urging the clamping portions of said jaws toward each other into clamping position, and means carried by said side walls for centering said jaws with respect to said opening.

ROY A. STONE.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,662,422	Hodges	Mar. 13, 1928
2,169,691	Hammer	Aug. 15, 1939
2,244,344	North et al.	June 3, 1941
2,414,662	Ostrom	Jan. 21, 1947