O. F. FOGELSTRAND.

CUPBOARD-LATCHES.

No. 194,139. Patented Aug. 14, 1877.

Fig. 1.

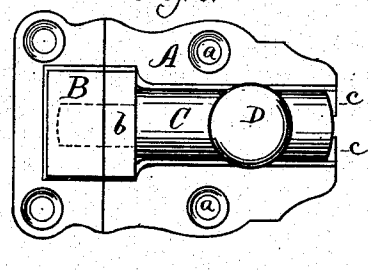


Fig. 2.

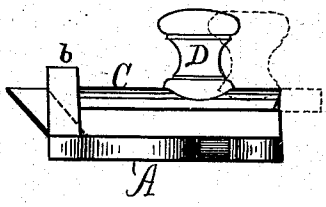


Fig. 3

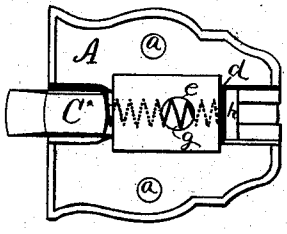


Fig. 4.

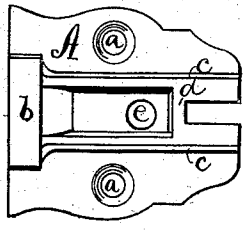


Fig. 5.

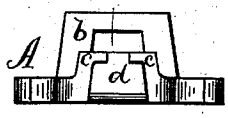


Fig. 6.

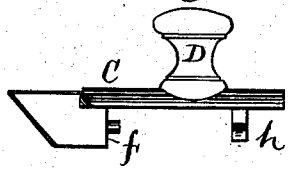
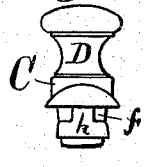


Fig. 7.



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UNITED STATES PATENT OFFICE.

OTTO F. FOGELSTRAND, OF NEW BRITAIN, ASSIGNOR TO THE HART, BLIVEN & MEADE MANUFACTURING COMPANY, OF KENSINGTON, CONN.

IMPROVEMENT IN CUPBOARD-LATCHES.

Specification forming part of Letters Patent No. **194,139**, dated August 14, 1877; application filed February 5, 1877.

To all whom it may concern:

Be it known that I, OTTO F. FOGELSTRAND, of New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Cupboard-Latches, of which the following is a specification:

The object of my invention is to cheapen the construction without impairing the utility or durability of the latch.

The invention consists in the peculiar construction and combination of parts, as hereinafter described.

In the accompanying drawings, Figure 1 is a plan or top view, showing the front of a cupboard-latch which embodies my invention. Fig. 2 is an edge view of the same; Fig. 3, a plan view of the rear side of the same; and Figs. 4, 5, 6, and 7 are detached views of parts of the same.

A designates the base-plate, provided with screw-holes *a a*, as in ordinary cupboard-latches. The front or outer end of the plate A, nearest the keeper B, is provided with a bridge, *b*, Fig. 2, the opening in which will admit the large end of the bolt C and allow it to play longitudinally therein.

Running lengthwise with the plate A, and projecting from its front surface, there are two ledges, *c c*, upon the top edge of which the bolt C slides. Toward the rear end of these ledges is a cross-plate, *d*, and in front of said plate *d*, to a point near the bridge *b*, the bottoms of the ledges are connected by a bottom plate having an orifice, *e*, Figs. 3 and 4, said plate covering the spring-chamber formed by the ledges and latch. Back of the cross-plate *d* the top of the ledges hook over inward, and are open at the bottom, thereby forming a longitudinal slot with overhanging side walls, as shown in Fig. 5, which figure is a detached view showing the rear end of the plate A, and the parts formed on it and constituting a part thereof. Fig. 4 is a plan view showing the front of said plate.

Instead of making the longitudinal slot with overhanging side walls of the particular shape shown, the walls formed by the ledges *c c* may take the shape of an ordinary dovetail or equivalent hooked form.

The latch C, I prefer to cast in one and the same piece with the knob D. The thick or outer end of the latch C is of the usual form, and the main portion of its body is much thinner, and of a width about equal to that of said outer end, (preferably a little wider,) so that it will span the top of the ledges *c c*, as shown in Fig. 1. Near the junction of the outer end and body of the latch is a shoulder, *f*, as shown in Figs. 6 and 7, which figures are detached side and end views of said latch. If desired, a small nib may be formed on the shoulder *f* to enter one end of the spiral spring *g*, Fig. 3, and steady it in place.

Near the rear end of the latch C is a lug, *h*, having a narrow neck and enlarged base, of a shape to fit the overhanging walls of the longitudinal slot between the ends of the ledges *c c*. The plate A and the latch can be cast in the form herein described, and, when cast, bronzed or finished in any proper manner, and are then ready to be put together. This is done by placing the latch C on the top of the ledges *c c*, with the thick part or outer end resting in the spring-chamber between said ledges, forward of the cross-plate *d*, and with the lug *h* just outside of the rear end of the plate and ledges *c c*. The latch can then be slipped forward endwise, and its front or outer end will pass under the bridge *b*, and the lug *h* will enter the longitudinal slot formed by the overhanging walls of the ledges *c c*, so that the latch may move longitudinally within the plate A, but neither end can be displaced until the latch has been slipped so far backward as to disengage the lug *h*.

After placing the latch in position within the plate A, the spiral spring *g*, Fig. 3, is forced through the orifice *e* in the bottom plate and into the spring-chamber, when one end of the said spring will rest against the shoulder *f* of the latch C, and the other end against the cross-plate *d* of the plate A, whereby all the power of the spring forces the latch outward, causing it to act as in the ordinary spring cupboard-latch.

The orifice *e* is formed a short distance forward of the cross-plate *d*, so that there is no liability of any accidental displacement of the spring. By making this orifice *e* in the plate

which covers the spring-chamber, the spring can be inserted after the other parts have all been put in place, which is not the case with any prior latch which is driven by a spiral spring.

In this latch the spring should have coils enough so that, when compressed by the latch until its coils rest one against the other, the lug will not go back far enough to disengage from the plate, and, if so formed, there is no liability of the parts becoming accidentally detached.

I claim as my invention—

1. In a cupboard-latch, the plate covering the spring-chamber, provided with the orifice *e*, substantially as and for the purpose described.

2. The combination of the plate provided with ledges *c c*, bottom plate *e*, and cross-plate *d*, which form three sides and rear end of the spring-chamber, the spiral spring *g*, resting within said chamber. and the latch C, adapted to cover said spring, and close one side and the front end of said spring-chamber, substantially as described, and for the purpose specified.

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