A. F. RIPPLE.

MAIL BOX.

APPLICATION FILED SEPT. 26, 1908.

908,500. Patented Jan. 5, 1909.

FIG. 1.

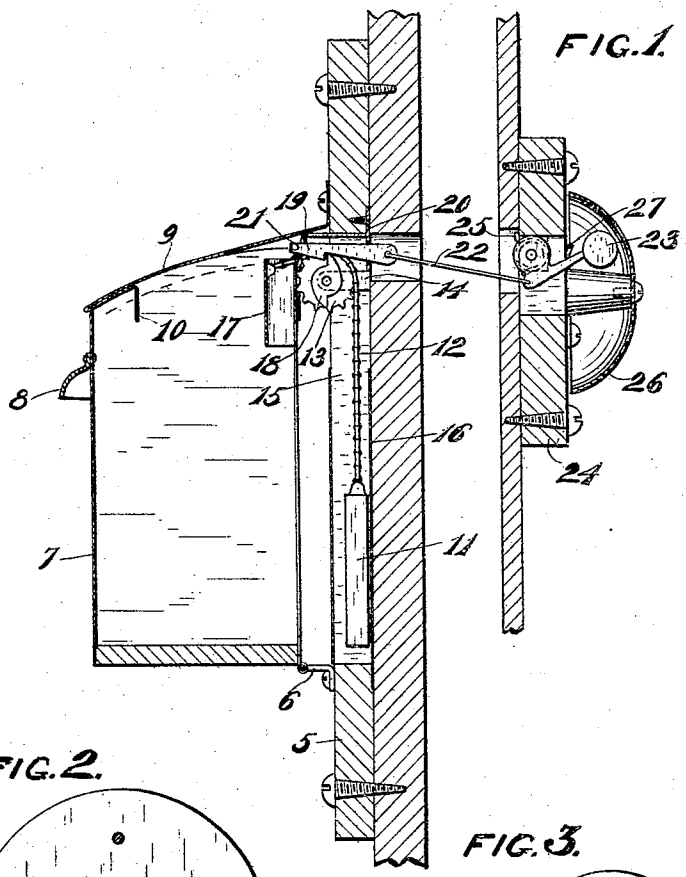


FIG. 2.

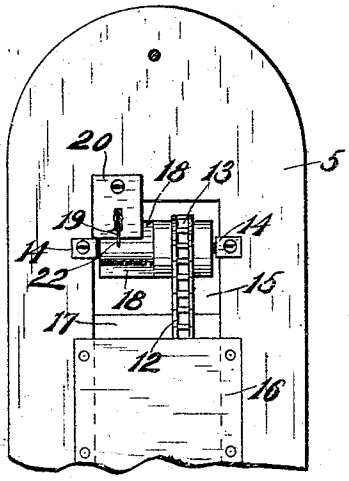
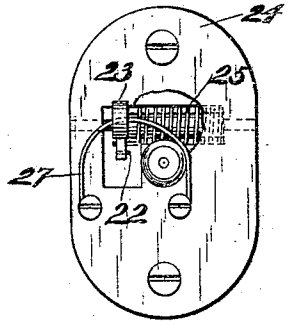


FIG. 3.



WITNESSES.

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AUGUST F. RIPPLE, OF OSHKOSH, WISCONSIN.

MAIL-BOX.

No. 908,500. Specification of Letters Patent. Patented Jan. 5, 1909.

Application filed September 26, 1908. Serial No. 454,910.

To all whom it may concern:

Be it known that I, AUGUST F. RIPPLE, residing in Oshkosh, in the county of Winnebago and State of Wisconsin, have invented new and useful Improvements in Mail-Boxes, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

This invention has for its object to provide a mail box or other receptacle with an alarm to indicate when the box is opened and thus notify the parties when mail has been placed in their mail box.

With the above and other objects in view the invention consists in the mail box herein claimed, its parts and combination of parts and all equivalents.

Referring to the accompanying drawings in which like characters of reference indicate the same parts in the different views; Figure 1 is a sectional view of a mail box constructed in accordance with this invention; Fig. 2 is a rear elevation of the back of the box proper; and, Fig. 3 is an elevation of the alarm with the bell removed.

In these drawings 5 indicates a base or other suitable support adapted to be secured to the front door or other desirable location for the mail box. A U-shaped rod 6 is fastened to the base 5 and stands out therefrom to form a hinge connection for a box member 7 which is preferably of sheet metal with a bottom of wood or other desirable material, the back member of the box portion having its lower edge turned around the rod 6 to complete the hinge connection. The box member 7 is provided with a handle 8 by means of which it may be drawn forwardly to expose the open upper end thereof beyond the edge of a stationary cover 9 which is secured to the base 5. The cover 9 has a depending projection 10 which by engaging the rear wall of the box member limits the degree of opening thereof.

To keep the box member 7 normally in its closed position a weight 11 is connected therewith by means of a chain 12 which passes over a sprocket wheel 13 journaled in angular bearing plates 14 secured to the base 5, said sprocket wheel 13 and the weight 11 extending into an opening 15 in the base. Sheet metal plates 16 are secured to the front and the back of the base 5 over the opening 15 to constitute a housing for the weight 11. Instead of the chain 12 being connected directly to the back of the box member 7, it is preferably connected to a sheet metal prjection 17 on the inside of the box member which spans a cut away part at the upper end of the back portion thereof provided for the purpose of clearing the sprocket wheel 13.

The sprocket wheel 13 carries one or more cam teeth 18 at its side to engage with a sliding and lifting pawl 19 which is loosely mounted in a double guide 20 secured on the back of the base and supporting the pawl near its front and rear ends. The pawl 19 has its front end bent over to one side to form a stop 21 to engage the plate 20 and prevent its moving out of its place therein. The pawl 19 is free to rise and fall with the action of the cams 18 against the beveled nose thereof during the closing movement of the box, but when the box is opening said pawl is forced forwardly by its engagement with the cam teeth 18 to exert a pull upon a wire 22 which connects it with a spring actuated member 23 of an alarm.

The alarm, which may be located on the inside of the door or wherever desired, comprises a base member 24 for attachment to a support with a hammer 23 pivotally mounted therein and under the action of a coil spring 25 pressing it toward the bell member 26 mounted on the base, such coiled spring being preferably housed within an opening within the base member 24. The hammer 22 normally bears against a U-shaped spring wire 27 which is fastened to the base 24 and serves as a means for preventing the hammer remaining in contact with the bell, the hammer being compelled to strike the spring 27 and compress it slightly before reaching the bell.

In operation the box member 7 is drawn forward by means of the handle 8 to deposit mail therein and in doing so the turning of the sprocket wheel 13 by the chain 12 passing over it causes the cam teeth 18 to repeatedly pull upon the beveled nose of the pawl 19 so as to slide said pawl forwardly and jerk upon the wire 21, which in turn pulls upon the hammer 23 to turn it against the action of its spring 25, and then on the pawl 19 being released by the teeth 18 said spring 25 throws the hammer against the spring 27 and strikes the bell 26 to sound the alarm and indicate to the occupants of the house that mail has been placed in the mail box. As soon as the handle 8 is released the weight 11 returns the box member to its closed position.

Not only does the present invention indicate by sounding the alarm the fact that mail has been placed in the box, but it will also constitute a means for sounding an alarm in event of an unauthorized person attempting to open the mail box for the purpose of removing the mail therefrom.

Obvious changes may be made in the details of construction without departing from the spirit and scope of the present invention.

What I claim as my invention is;

1. A mail box, comprising a pivotally mounted box member, a stationary cover therefor, a weighted chain connected to the box member, a sprocket wheel over which the chain passes, a cam tooth carried by the sprocket wheel, a sliding pawl engaged by the cam tooth, and an alarm connected with the sliding pawl to be actuated thereby when the box member is swung open.

2. A mail box, comprising a base adapted to be secured to a door or other support, a box member hinged thereto, a stationary cover mounted on the base, a sprocket wheel journaled on the base, a weighted chain connected to the box member and passing over the sprocket wheel, a tooth carried by the sprocket wheel, a sliding pawl mounted on the base in position to be engaged by the tooth, and an alarm connected with the sliding pawl to be operated thereby when the box is opened.

3. A mail box, comprising a base, a box member hinged thereto, a stationary cover for the box member mounted on the base, a stop on the cover for engaging the box member for limiting the opening movement thereof, said base being provided with an opening, bearing strips secured to the base at the sides of the opening, a sprocket wheel journaled in said bearing strips, a chain connected to the box member and passing over the sprocket wheel, a weight on the chain traveling in the opening of the base, a tooth carried by the sprocket wheel, a double bearing mounted on the base, a pawl slidably mounted therein in position to be engaged by the tooth and capable of a rise and fall due to the engagement of the tooth therewith during the closing of the box member but being adapted to be slid in its bearings by the engagement of the tooth therewith during the opening movement of the box member, and an alarm connected with the sliding pawl to be operated thereby when the box member is opened.

4. A mail box, comprising a pivotally mounted box member, a stationary cover therefor, a weighted chain connected to the box member, a sprocket wheel over which the weighted chain travels, a tooth carried by the sprocket wheel, a sliding pawl engaged by the tooth, and an alarm connected with the sliding pawl to be operated thereby when the box member is opened and comprising a base, a spring actuated hammer pivotally mounted thereon, a bell to be engaged by the hammer, and a spring wire standing in the path of the hammer to be engaged thereby before it engages the bell.

In testimony whereof, I affix my signature, in presence of two witnesses.

AUGUST F. RIPPLE.

Witnesses:
GEORGE HILTON,
FLORA GRETTMANN.