

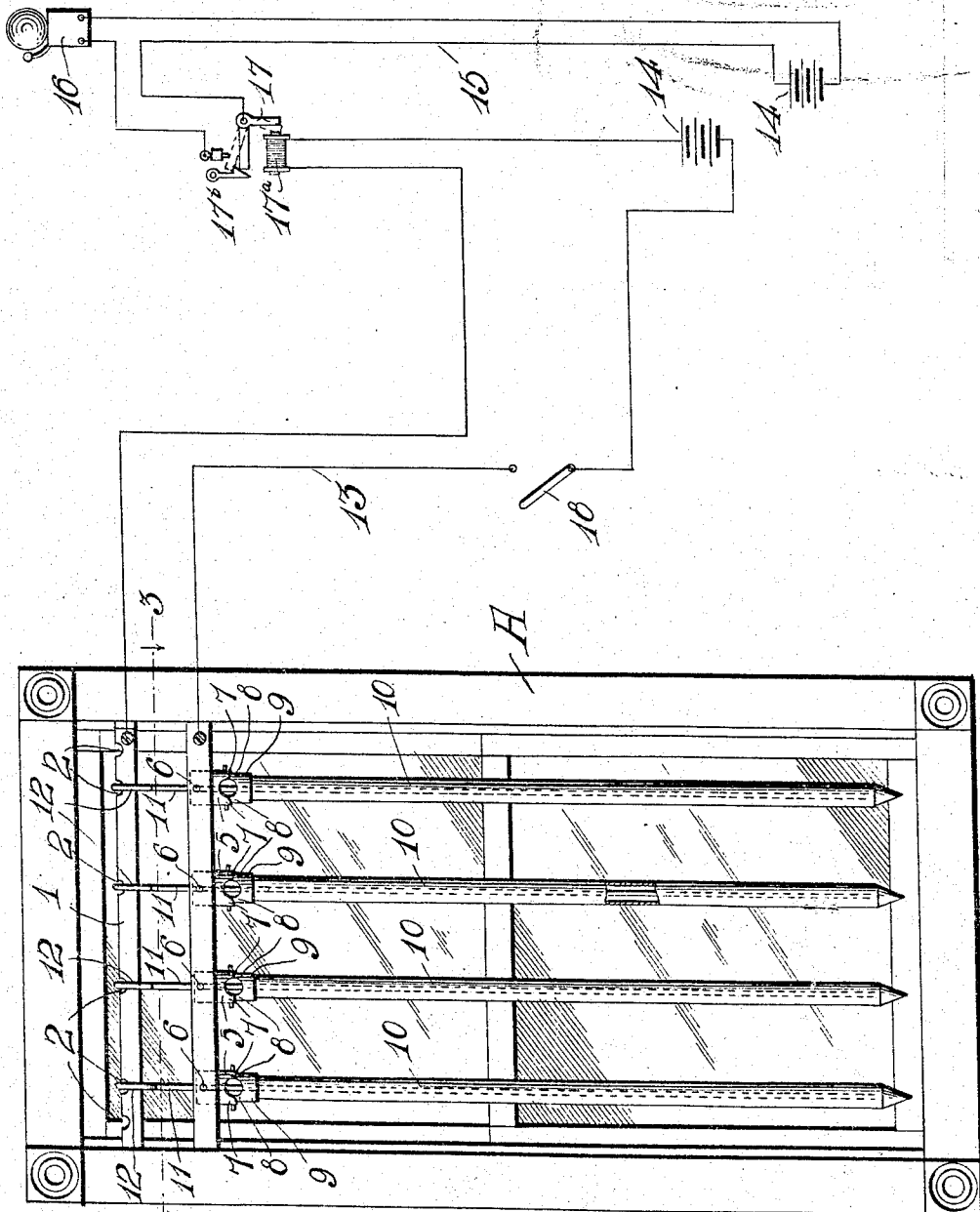
SUBSTITUTE FOR MISSING XR

A. AMBUHL.
BURGLAR ALARM.
APPLICATION FILED MAY 12, 1910.

985,720.

Patented Feb. 28, 1911.

2 SHEETS—SHEET 1.



Witnesses
C.R. Hardy
G.H. Griesbauer.

Inventor
A. Ambuhl
by *H. B. Wilson & Co.*
Attorneys

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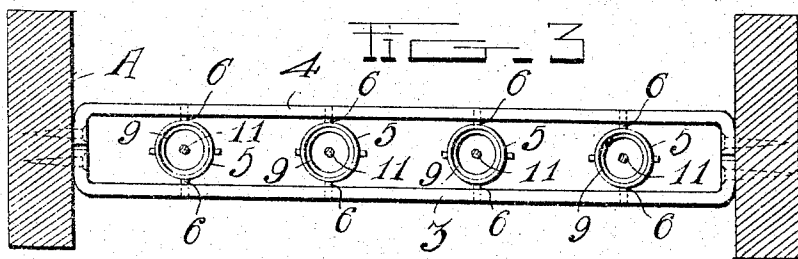
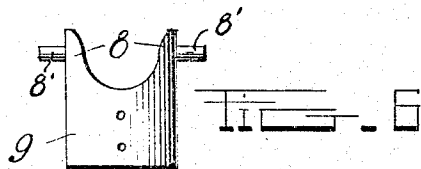
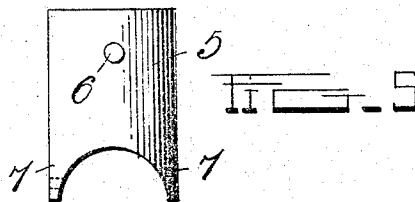
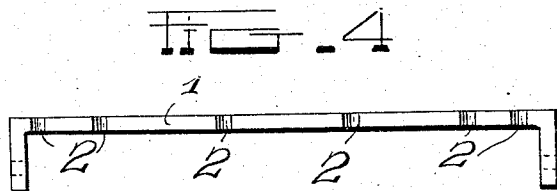
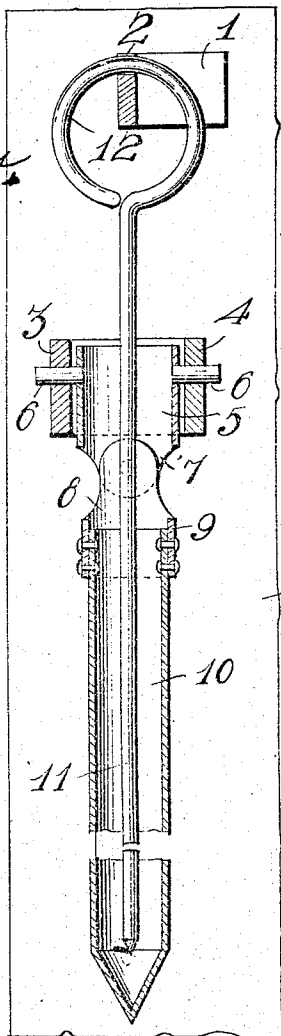
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2 SHEETS-SHEET 2.

For other
pendulum
type interrupters
see 314.10



Witnesses
J. R. Hardy
C. H. Greubauer.

Inventor
A. Ambuhl
By *A. B. Wilson & Co.*
Attorneys

20.42C

UNITED STATES PATENT OFFICE

ANDREW AMBUHL, OF SAN FRANCISCO, CALIFORNIA.

BURGLAR-ALARM.

985,720.

Specification of Letters Patent.

Patented Feb. 28, 1911.

Application filed May 12, 1910. Serial No. 560,941.

To all whom it may concern:

Be it known that I, ANDREW AMBUHL, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Burglar-Alarms; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to an improved burglar alarm.

The object of the invention is to provide a simply constructed and reliable alarm of this character which is applicable to either business houses or to residences.

With this and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a front elevation with parts broken out of the device applied to a window; Fig. 2 is a transverse vertical section thereof; Fig. 3 is a sectional view taken on the line 3—3 of Fig. 1; Fig. 4 is a top plan view of the supporting bar; Figs. 5 and 6 are side elevations of the respective knuckle joint members.

In the embodiment illustrated a metal cross bar 1 is supported at its opposite ends in the upper end of the door or window frame as A in which it is to be used and is provided with a plurality of longitudinally spaced notches 2 for a purpose to be described, the notches at opposite ends of the bar being preferably arranged closer together for a purpose hereinafter described. Two laterally spaced parallel metal bars 3 and 4 are disposed in a plane below the bar 1 with their ends secured to the opposite sides of the window frame or other structure on which the device is to be mounted. These bars 3 and 4 are spaced apart a sufficient distance to receive between them a plurality of longitudinally spaced metal castings as 5 having laterally extending studs as 6, mounted in the bars 3 and 4. These castings as 5 are each provided at their lower ends with depending apertured ears as 7 which are designed to be pivotally connected with ears 8 of a casting 9 soldered or

otherwise secured to a metal tube 10, preferably composed of brass. The ears 8 are preferably provided with lateral studs 8' which project outwardly in opposite directions and are designed to engage the apertured ears 7 of the member 5 and form the pivotal connection therebetween. This pivotal connection of the members 5 with the member 9 forms knuckle joints whereby the tubes 10 are caused to hang plumb. The tubes 10 are constructed of a length slightly less than the height of the frame to which they are to be applied to permit them to swing freely therein.

A plurality of metal rods as 11 which are preferably longer than the tubes 10 are provided at their upper ends with loops or eyes as 12 through which the bar 1 passes and which are designed to rest in the notches as 2 in said bar 1. The bar 1 is arranged in a vertical plane which extends centrally between the bars 3 and 4. These rods 11 which are suspended from the notched bar 1 are arranged to extend centrally in the tubes 10 for a purpose to be described. To the metal bar 3 and in electrical contact therewith is connected a terminal wire 13 from a battery 14, the other wire 15 leading through a bell 16 to the bar 1. It will thus be obvious that should the tubes 10 be deflected in either direction a contact will be formed between tube 10 and rod 11 energizing the magnet 17^a and closing the electric circuit through the armature 17 as shown in dotted lines in Fig. 1 which closes the circuit of the bell and causes the bell to continue to ring until the member 17 is disengaged from the catch 17^b and returned to normal position as shown in full lines in Fig. 1. A switch 18 is provided in the circuit so that when it is desired to throw the apparatus out of operation said switch is opened and the tubes 10 and rods 11 may be moved to opposite sides of the supporting frame and suspended from the closely arranged notches heretofore described where they will be out of the way. When desired for use these tubes 10 and 11 are replaced in the proper notches and the switch 18 closed.

When this improved apparatus is in operative position no entrance may be made through the protected opening without sounding an alarm, the bell being arranged at any desired point.

From the foregoing description taken in

connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

- 5 Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention as defined in the appended
10 claims.

I claim as my invention:—

1. An electric burglar alarm comprising vertically spaced metal members connected with the opposite terminals of an electric
15 circuit, a metal tube depending from one of said members and mounted to swing thereon, a metal rod suspended to swing from the other member within said tube and normally spaced from the side walls thereof.
- 20 2. An electric burglar alarm comprising vertically spaced horizontally disposed metal members, electric wires connected with said members, one of said members having a plurality of longitudinally spaced notches, a
25 metal rod provided with means for loosely engaging one of said notches to permit the free swinging of said rod, a metal tube supported on the other horizontally disposed metal member and surrounding said rod.
- 30 3. An electric burglar alarm comprising vertically spaced horizontally disposed metal members, electric wires connected with said members, one of said members having a plurality of longitudinally spaced notches, a
35 metal rod provided with means for loosely engaging one of said notches to permit the free swinging of said rod, a metal tube supported on the other horizontally disposed

metal member and surrounding said rod, said tube being mounted to swing laterally. 40

4. An electric burglar alarm comprising horizontal laterally spaced parallel metal bars, an electric circuit having one end connected to one of said bars, a tubular casting arranged between said bars and supported
45 thereby, a metal tube pivotally connected with said casting, an upper metal bar supported above said parallel bars in a vertical plane extending centrally between said parallel bars, the other end of the circuit being
50 connected to said upper bar, a metal rod mounted to swing on said upper bar and to depend centrally within said tube.

5. An electric burglar alarm comprising horizontal laterally spaced parallel metal
55 bars, an electric circuit having one end connected to one of said bars, a tubular casting arranged between said bars and supported thereby, a metal tube pivotally connected with said casting, an upper metal bar supported above said parallel bars in a vertical
60 plane extending centrally between said parallel bars, the other end of the circuit being connected to said upper bar, a metal rod having an eye at its upper end for engagement
65 with said upper bar, and said rod depending within said tube and spaced normally from the side walls thereof.

In testimony whereof I have hereunto set my hand in presence of two subscribing wit- 70
nesses.

ANDREW AMBUHL.

Witnesses:

WALDO AMBUHL,
MARTHA E. AMBUHL.