

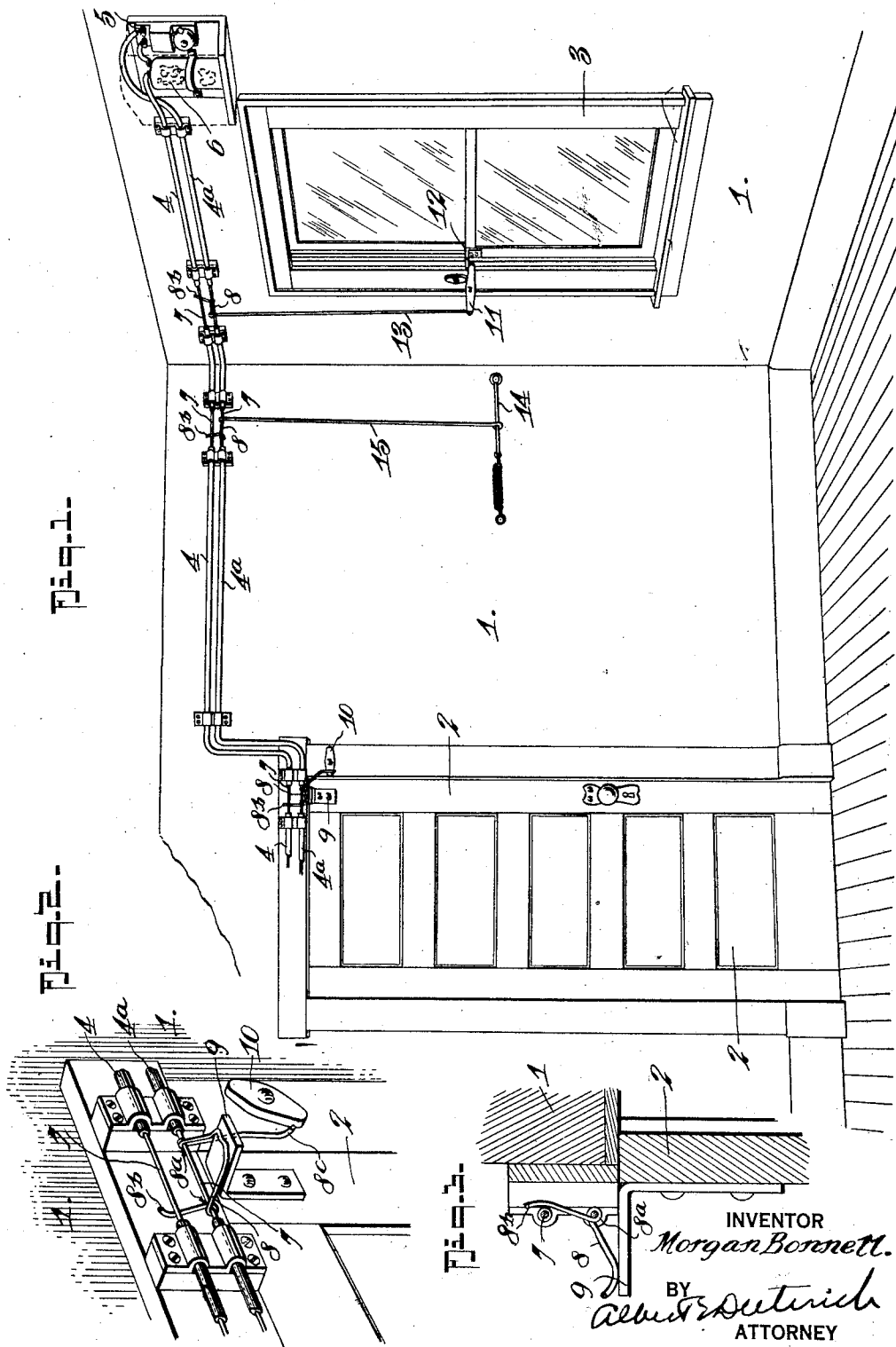
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ALARM SWITCH MECHANISM

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My invention relates to certain new and useful improvements in burglar and fire alarm mechanisms and it primarily has for its object to provide a simple inexpensive way to protect buildings against unlawful entry and against fire.

It is an object of the invention to provide an alarm mechanism preferably of the open-circuit type which can be installed in a building by almost anyone having special electrical knowledge or not and at a cost that is practically nominal.

Other objects will in part be obvious and in part be pointed out hereinafter.

To the attainment of the aforesaid objects and ends, my invention consists in the novel details of construction, and in the combination, connection and arrangement of parts, hereinafter more fully described and then pointed out in the claims.

In the drawings:

Figure 1 is a diagrammatic perspective view of a portion of a room illustrating the application of my invention.

Figure 2 is an enlarged detail perspective view of one of the circuit making and breaking members and the conductor wires on which the same is mounted and with which it cooperates to open and close the circuit from battery to bell.

Figure 3 is a detail sectional view of a part of my invention.

In the drawing in which like numerals of reference indicate like parts in all the figures, 1 represents the walls of the room, 2 a door and 3 a window.

In carrying out my invention I run a pair of parallel insulating wires 4-4^a around such portions of the room as are to be protected, and above the door and window I remove a portion of the insulation from each wire. The lower wire is connected to one of the terminals 5 of the signal (bell or other suitable signal) and the other terminal of which is electrically connected to the battery 6 or other source of electrical energy. The upper wire 4 connects to the battery or source of electrical energy 6 also.

Mounted on the portion 7 of the lower

wire 4^a from which the insulation has been removed is a bell crank circuit closer 8 which may consist of a stout wire bent to form bearing ears 8^a and fingers 8^b and 8^c, the finger 8^b lying between the insulation portion 7 of the upper wire 4 and the wall and adapted by gravity to fall over into contact with the upper wire and close the signal circuit. When the part to be protected is the door 2 that door is provided with a cleat 9 which serves to hold the member 8 in the circuit-open position when the door is closed but will permit it to move to the circuit-closed position as soon as the door is partially opened.

In order that the member 9 protecting the door may be rendered inoperative during such times as the occupants of the building are desirous of leaving the door unprotected I provide a turnable member 10 which is so arranged that it can be moved in one position to hold the member 8 in a circuit-open condition and can be moved to another position to allow that member to function properly.

When the invention is used in connection with the window to be protected I provide a pivoted lever 11 mounted on the window frame in position to be engaged by a finger 12 secured to the movable window sash and connect the lever 11 by a rod-like connection 13 to the member 8 so that when the window is closed the finger 12 will push on one end of the lever 11, thereby raising the other end and causing the rod 13 to hold the member 8 in the circuit-open position. As soon, however, as the window is slightly raised gravity acting on the overweighted end of the lever 11 will permit it to move to allow the member 8 to close the finger.

In order to employ my invention as a fire alarm I provide a fusible or burnable member 14 and connect it by a rod-like member 15 with a member 8 so that the member 14 will hold the rod up and the member 8 in the circuit-open position under normal position, but upon burning or fusing the member 14 will permit the rod 15 to drop thereby permitting the member 8 to gravitate to the circuit-closed position.

It is obvious from the foregoing that the signal and source of energy 5 and 6 respectively may be placed either inside of the room or building being protected, or the same may be located at a distant point, as for instance in a central protective agency or police or fire station.

From the foregoing description it is thought the construction, operation and advantages of my invention and its extreme simplicity will be understood by those skilled in the art to which it relates.

What I claim is:

1. In electrical alarm mechanism, a pair of insulated conductor wires having portions exposed, means for securing said wires adjacent the exposed portions to hold said wires approximately parallel, a circuit making and breaking member pivotally mounted on one wire's exposed portion and itself having a portion adapted to be brought into contact with the other wire's exposed portion at times, and means for operating said circuit making and breaking member the insulation of said wires serving as limiting abutments to restrain said circuit making and breaking member against substantial movement along said wires.

2. In electrical alarm mechanism, a pair of insulated conductor wires having portions exposed, means for securing said wires adjacent the exposed portions to hold said wires approximately parallel, a circuit making and breaking member pivotally mounted on one wire's exposed portion and itself having a portion adapted to be brought into contact with the other wire's exposed portion at times, means for operating said circuit making and breaking member, said circuit making and breaking member comprising a wire provided with two spaced eye portions by which it is mounted, a contacting finger portion, and an operating lever portion, the insulation of said wires serving as limiting abutments to restrain said circuit making and breaking member against substantial movement along said wire.

3. In an electrical alarm mechanism which includes a pair of conductor wires, the combination with such wires, of a circuit making and breaking member pivotally mounted on one of said wires and in electrical contact therewith and itself having a portion adapted to be brought into electrical contact with the other wire at times by gravity, a movable means having provision normally holding said member in the circuit-open position and adapted to become disengaged therefrom when in an abnormal position, and other means associated with the adjacent structure to render such member inoperative at will.

4. In an electrical alarm mechanism which includes a pair of conductor wires, the combination with such wires, of a circuit making and breaking member pivotally mounted on

one of said wires and in electrical contact therewith and itself having a portion adapted to be brought into electrical contact with the other wire at times by gravity, a movable means having provision normally holding said member in the circuit-open position and adapted to become disengaged therefrom when in an abnormal position, and other means associated with the adjacent structure to render such member inoperative at will, said last named means comprising a member operable to engage with said circuit opening and closing member to hold it against the action of gravity.

5. In an electrical alarm mechanism, a pair of insulated conductor wires having portions exposed, means for securing said wires adjacent the exposed portions and to one side of the part to be protected by the alarm mechanism and holding said wires approximately parallel, a circuit making and breaking member consisting of a wire bent into an approximate U-shape with the legs of the U twisted around the exposed portion of one of said wires and spaced apart to form a pivot, one of said legs being extended to provide a finger to engage the exposed portion of the other wire when said circuit making and breaking member is in one position, the other leg of said U-shaped member being extended, and means associated with said last named extended leg for holding said circuit making and breaking member in the circuit open position, and means cooperating with the U-shaped portion of said circuit making and breaking member normally to hold said member in the circuit-open position, said circuit making and breaking member adapted to move to the circuit-closed position by gravity.

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