

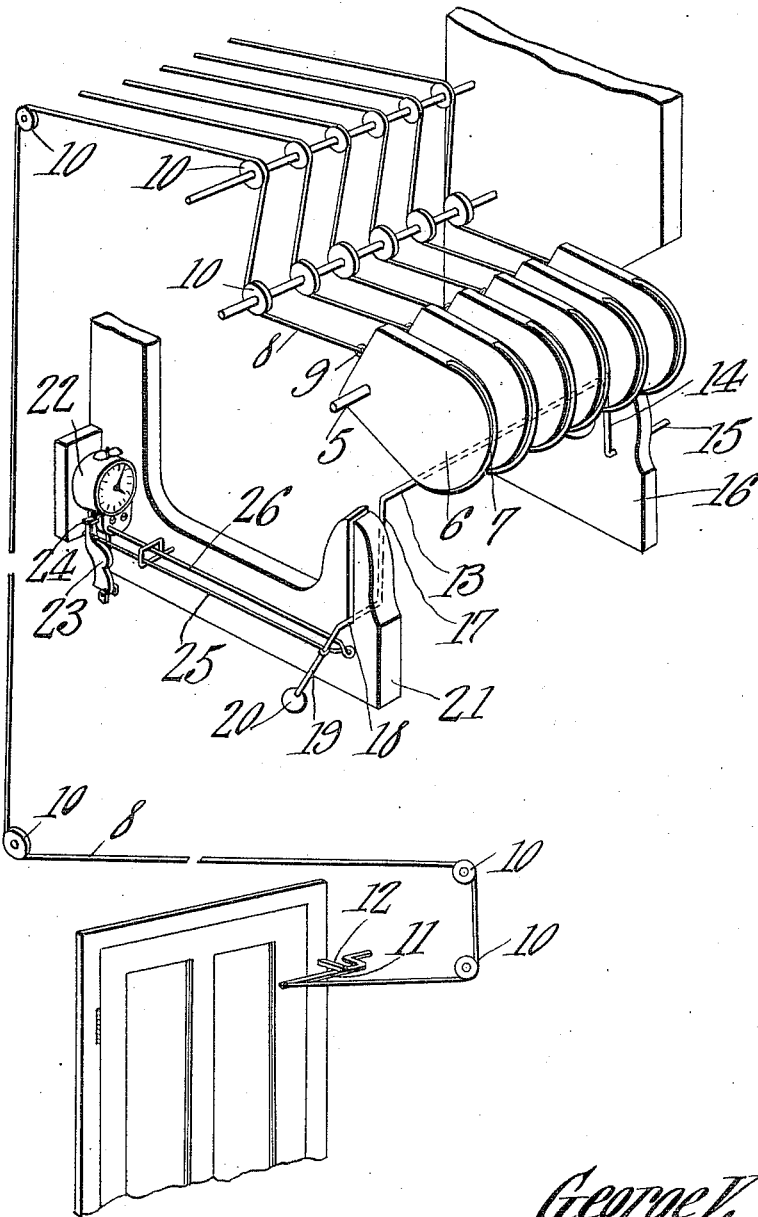
G. V. RUSS.

ALARM.

APPLICATION FILED AUG. 11, 1910.

998,639.

Patented July 25, 1911.



Witnesses

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# UNITED STATES PATENT OFFICE.

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## ALARM.

998,639.

Specification of Letters Patent. Patented July 25, 1911.

Application filed August 11, 1910. Serial No. 576,637.

*To all whom it may concern:*

Be it known that I, GEORGE V. RUSS, a citizen of the United States, residing at Ivanhoe, in the county of Sampson and State of North Carolina, have invented a new and useful Alarm, of which the following is a specification.

It is the object of the present invention to provide an improved alarm and the invention relates more particularly to an alarm designed for the detection of burglars, the same being arranged for actuation upon opening of any one of a number of doors or windows in connection with which the alarm mechanism is installed.

Broadly speaking, the invention resides in the provision of a plurality of gravity members which are normally held in elevated position each by a flexible connection which is normally taut but which is intended to be slackened by the opening of a door or window to which it leads from the alarm mechanism and each of these gravity members is arranged, upon being allowed to drop, to strike and move a trip which, upon movement, will release the alarm mechanism for actuation.

With the above and other objects in view, the invention resides in the construction and arrangement of parts substantially as shown in the accompanying drawings in which the figure is a perspective view, partly diagrammatic, illustrating the alarm mechanism embodying the present invention.

In the drawings, the alarm mechanism is illustrated as embodying a plurality of gravity members which are mounted upon a shaft indicated by the numeral 5. This shaft 5 may be supported at any convenient point within the building in which the mechanism is installed and the gravity members which are indicated by the numeral 6 are independently mounted for oscillation upon the shaft. Each of these gravity members is in the form of a narrow block of any suitable size and shape although preferably rounded at that end opposite its pivoted end and provided at its said rounded end with a wear rim indicated by the numeral 7, this rim being intended to take up the wear between the gravity member and a trip member which will presently be described and with which the gravity member coöperates.

The gravity members 6 are held normally in substantially horizontal position through the medium of flexible connections indicated

by the numeral 8, which connections may be in the form of ropes, cords, cables, or in fact of any other suitable material. Each of the connections 8 is secured as at 9 to one of the gravity members 6 above the pivot for the same or in other words above the point of connection between this member and the shaft 5 and the said flexible connections are trained over any number of pulleys 10 so arranged as to allow the flexible connection to be led from the gravity member to a door or window which is to be protected by the alarm mechanism. At the door or window, (here illustrated as a door) the flexible connection is secured to the end of an arm 11 constituting part of a trip which is pivoted in a bracket 12 at that side of the door frame with which the free edge of the door coöperates, and this arm 11 projects in the path of movement of the door from closed to open position so that when the door is swung open, the arm will be moved upon its pivot and the connection 8 which is normally held taut owing to the normal position of the arm 11, will be allowed to become slack and as a result the gravity member 6 to which it is connected will be allowed to drop.

As heretofore stated, the gravity members 6 all coöperate with a trip member which is designed to release the alarm mechanism for actuation and the nature of this trip member and also its connection with the alarm mechanism will now be specifically 90 described.

The trip member above mentioned is preferably in the nature of a rod the intermediate portion of which is indicated by the numeral 13, this rod being bent at one end at right angles as at 14 and thence laterally as at 15 this latter portion being journaled in a suitable support indicated by the numeral 16. The opposite end of the rod is bent at right angles as at 17 parallel to the portion 14 and in a plane therewith and thence laterally as at 18 in alinement with the portion 15 and finally at right angles as at 19, the last mentioned portion of which is provided with a weight 20 at its end. The portion 18 of the last mentioned end of the rod is journaled in a support 21 corresponding to the support 16 and owing to the weight 20, the entire member is held with its portions 14 and 17 upright and its connecting portion 13 extending across the entire number of gravity members 6.

It will now be understood from the foregoing description that should any of the gravity members be released and allowed to drop, the trip member above described will be oscillated against the tendency of the weight 20 to hold it in upright position and the results attained through this oscillation of the trip member will now be fully described.

The alarm proper of the device is indicated by the numeral 22 and may be in the nature of an alarm clock of the ordinary construction or an alarm clock of special design including a time punch mechanism or not as may be desired. It will be supposed however that the clock includes such mechanism in its structure as well as the ordinary alarm, and inasmuch as neither of these clock mechanisms enters into the present invention except in a general way, neither will be described.

An arm indicated by the numeral 23 is mounted beneath the clock 22 and at its upper end normally engages with a finger 24 which when the arm 23 is disengaged therefrom, is designed to drop and allow the alarm mechanism to sound.

A rod indicated by the numeral 25, is secured to the arm 23 and is also secured to the portion 19 of the trip member so that when the said trip member is oscillated through the dropping of one of the gravity members 6, a pull will be exerted upon the rod 25 resulting in the arm 23 being swung in the general direction of the said trip member and this will result, as will be readily understood, in the actuation of the alarm itself. As stated, the alarm proper may embody a time punch mechanism, which mechanism will, when actuated, indicate the exact time at which the alarm proper was sounded and will consequently indicate the exact time at which a door or window of the building was opened. A rod 26 connects with the portion 19 of the trip, at one end, and pro-

jects at its opposite end in position to actuate the said time punch mechanism of the alarm 22 as is clearly shown in the drawings.

From the foregoing description of the invention it will be readily understood that should any one of a number of doors or windows with which the alarm is associated, be opened, the flexible connection 8 leading from this door or window to a corresponding one of the gravity members 6, will be allowed to become slack and as a result the said corresponding gravity member will be allowed to drop and actuate the trip member, thereby sounding the alarm and punching the time of such occurrence.

What is claimed is:—

In alarm mechanism of the class described, an alarm, a shaft, supports, a trip comprising a rod bent at one end in a downward direction and thence laterally and having its last mentioned portion journaled in one of the supports, the opposite end of the rod being bent downwardly and thence laterally, the laterally bent portion of the last mentioned end of the rod being journaled in the other support, the said rod, and its last mentioned end being bent beyond the said lateral portion to form a downwardly projecting arm, a weight at the lower end of the arm for holding the trip normally in vertical position, a rod connected to the arm and leading to and operatively connected with the alarm, a plurality of gravity actuated members carried by the shaft and arranged above the connecting portion of the trip, and flexible means normally supporting the members out of engagement with the said portion of the trip.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

GEORGE V. RUSS.

Witnesses:

J. S. HALL,  
A. F. NELSON.