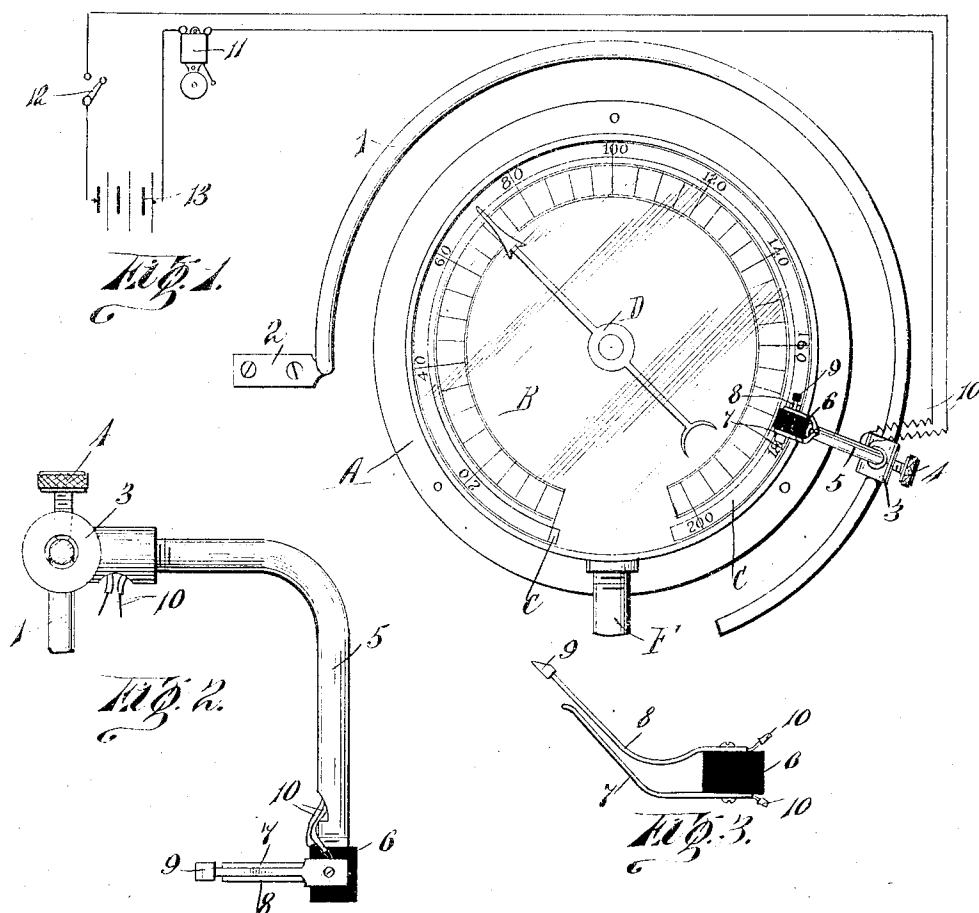


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A. CHARLAND.
ALARM FOR GAGES, CLOCKS, &c.
APPLICATION FILED DEC. 30, 1905.



Witnesses:

Eugene M. Honey
H. Cousins

Adelard Charland,
Inventor,

By Marion & Marion
Attorneys

UNITED STATES PATENT OFFICE.

ADELARD CHARLAND, OF LAKE MEGANTIC, QUEBEC, CANADA.

ALARM FOR GAGES, CLOCKS, &c.

No. 843,929.

Specification of Letters Patent.

Patented Feb. 12, 1907.

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To all whom it may concern:

Be it known that I, ADELARD CHARLAND, a subject of the King of Great Britain, residing at Lake Megantic, county of Compton, in the Province of Quebec, Canada, have invented certain new and useful Improvements in Alarms for Gages, Clocks, &c.; and I do hereby declare that the following is 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.

My invention relates to alarms for steam-gages and similar devices having a dial and a movable pointer passing thereover.

The object of my invention is to provide a device which will give an alarm by closing an electrical circuit and which will not impede the movement of the pointer.

A further object is to provide a simple device which may be easily applied to existing forms of gages and clocks, which may be adjusted to a variety of positions, and which is independent of the mechanism of the apparatus to which it is applied, so that there will not be an electrical circuit through the apparatus to which it is applied; and my invention consists of the construction, combination, and arrangement of parts as herein illustrated, described, and claimed.

In the accompanying drawings I have illustrated two forms of embodiment of my invention as applied to two forms of apparatus, in which drawings similar reference characters designate corresponding parts, and in which—

Figure 1 is a front elevation showing the application of my invention to a steam-gage. Fig. 2 is a side elevation of the device of my invention detached from any form of apparatus and showing a supporting member in section. Fig. 3 is an enlarged detail of the contact for closing the circuit.

Referring to the drawings, 1 designates an arc-shaped support having a flattened end 2, by means of which it may be attached adjacent a steam-gage or similar apparatus.

Slidably disposed on the support 1 is a collar 3, provided with a set-screw 4, by means of which it may be fixed at any point on the support 1. Carried by the collar 3 is a curved tubular arm 5, having on its free end a body of insulation 6. Secured on one side of the body of insulation 6 is a flexible metal-

lic contact 7, and secured on the opposite side of the body of insulation 6 is a flexible metallic contact 8 of a greater length than the contact member 7 and provided on its outer end with a body of insulating material 9. Leading from the contact members 7 and 8 are wires 10, adapted to form an electrical circuit, in which is placed a bell 11 and switch 12 and a battery 13 of ordinary construction.

In Fig. 1, A designates a gage, B a glass closure for the gage having an arc-shaped slot C therein, and D designates the pointer of the gage. The steam-gage illustrated in Fig. 1 is provided with the usual steam-pipe F.

In the operation of the form shown in Fig. 1 the arm 5 may be adjusted to any point on the support 1, so that when the pointer D reaches the point which the contact 9 covers the circuit formed by the wires 10 will be closed by the member 8 contacting with the member 7 and the bell 11 will be rung. The members 7 and 8 are made of very thin flexible material, so that the pointers D may readily pass the same after the contact has been made.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In combination with a dial and a pointer adapted to travel thereover, a support independent of the dial, a collar adjustably disposed on the support, means for locking the collar and the support, a plurality of contacts connected with the collar and disposed in the path of movement of the pointer, and wires forming a circuit between the contacts:

2. In combination with a dial and a pointer adapted to travel thereover, an arc-shaped support provided with a flattened end, a collar on the support, a set-screw carried by the collar, an arm carried by the collar, a body of insulation carried by the arm, contacts carried by the insulation, wires adapted to form a circuit between the contacts, and a body of insulation on one of the contacts in the path of movement of the pointer.

3. In combination with a dial and a pointer adapted to travel thereover, an arc-shaped support, a collar on the support, means for securing the collar on the support, a curved tubular arm carried by the collar, a pair of flexible electrically-separated contacts carried by the arm, wires disposed through the tubular arm and adapted to form a circuit

between the contacts, and a body of insulation on one of the contacts in the path of movement of the pointer.

4. In combination with a dial and a pointer
5 adapted to travel thereover, a slotted cover
for the dial, an arc-shaped support secured
adjacent the dial, a movable member adjust-
ably secured on the support, electrically-
separated flexible contacts carried by the
10 movable member and disposed through said

slot, wires adapted to form a circuit between
said contacts, and a body of insulation on one
of the contacts in the path of movement of
the pointer.

In witness whereof I have hereunto set my 15
hand in the presence of two witnesses.

ADELARD CHARLAND.

Witnesses:

SAM. RIOUX,

LEONIDAS CHATEAUNEUF.