PATENT SPECIFICATION

Application Date: Dec. 27, 1922. No. 35,143/22. **209,590**

Complete Left: Sept. 27, 1923.

Complete Accepted: Jan. 17, 1924.

PROVISIONAL SPECIFICATION.

Improvements in Electrical Impulse Clocks and Cases therefor.

We, ISAAC HARDY PARSONS, of "The Croft", Kibworth Harcourt, near Leicester, and ALFRED ERNEST JOSEPH BALL, of 212, East Park Road, Leicester aforesaid, both British subjects, do hereby declare the nature of this invention to be as follows:—

This invention relates to electric impulse clocks and has for object a simple and effective combination of an impulse clock movement and a protective or airtight case for same.

In carrying this invention into effect we may provide a disc, preferably of metal and of a diameter which may be in excess of the dial to be employed. We attach a dial to the front of the disc, or we may paint or emboss the chapters and minutes on the actual disc.

We secure to the back of the case a metal box to protect the impulse movement, and provide the said box with an air-tight detachable cover at the back. We provide a hole in the front of the box which is in contact with the disc for the passage of the hand spindles, and a hole or gland at a convenient point for the passage of the connecting wires.

We arrange that the front portion of the box is in close contact with the disc, or we provide the surfaces with packing so that an air-tight joint is formed, and we also form an air-tight joint between the connecting wires and the hole through which they pass.

We secure on front of the disc the usual metal bezel carrying the protecting glass, and secure the bezel in such a way to the disc that the front of the clock is rendered air-tight.

From the foregoing construction it will be seen that the movement is held in an air-tight enclosure, and the clock is, therefore, protected from the back, and also that the dial and hands are protected by an air-tight enclosure formed by the bezel and glass.

Clocks constructed as above are, therefore, highly suitable for situations in which damp, steam-laden or acid air is present, and at the same time the construction is simple and inexpensive.

To enable the clock to be readily supported on a wall we may provide a metal hanger fastened to the disc, and cranked to a depth equal to that of the air-tight box.

We may turn down the edge of the disc, or form same with a wired edge, or flute the space between the outside edge of the bezel and the edge of the disc, or provide embossed or other ornamentation. By painting the space black, the clearness of the dial is accentuated. We may make the outside edge hexagonal, oval or of other form.

Dated this 22nd day of December, 1922.

I. HARDY PARSONS.
ALFRED E. J. BALL.

COMPLETE SPECIFICATION.

Improvements in Electrical Impulse Clocks and Cases therefor.

We, ISAAC HARDY PARSONS, of "The Croft", Kibworth Harcourt, near Leicester, and ALFRED ERNEST JOSEPH BALL, of 212, East Park Road, Leicester aforesaid, both British subjects, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described

[*Price* 1/-]

and ascertained in and by the following statement:—

This invention relates to electric impulse clocks and has for object a simple and effective combination of an impulse clock movement and a protective or airtight case for same.

In carrying this invention into effect we may provide a disc, preferably of metal and of a diameter which may be in excess of the dial to be employed. We attach a dial to the front of the disc, or we may paint or emboss the hours and minutes on the actual disc.

We secure to the back of the case a metal box to protect the impulse movement, and provide the said box with an air-tight detachable cover at the back. We provide a hole in the front of the box which is in contact with the disc for the passage of the hand spindles, and a hole or gland at a convenient point for the passage of the connecting wires.

We arrange that the front portion of the box is in close contact with the disc, or we provide the surfaces with packing so that an air-tight joint is formed, and we also form an air-tight joint between the connecting wires and the hole through which they pass.

We secure on front of the disc the usual metal bezel carrying the protecting glass, and secure the bezel in such a way to the disc that the front of the clock is rendered air-tight.

From the foregoing construction it will be seen that the movement is held in an air-tight enclosure, and the clock is, therefore, protected from the back, and also that the dial and hands are protected by an air-tight enclosure formed by the bezel and glass.

Clocks constructed as above are, therefore, highly suitable for situations in which damp, steam-laden or acid air is present, and at the same time the construction is simple and inexpensive.

To enable the clock to be readily supported on a wall we may provide a metal hanger fastened to the disc, and cranked to a depth equal to that of the air-tight box.

We may turn down the edge of the disc, or form same with a wired edge, or flute the space between the outside edge of the bezel and the edge of the disc, or provide embossed or other ornamentation. By painting the space black, the clearness of the dial is accentuated. We may make the outside edge hexagonal, oval or of other form.

Referring to the annexed drawings in which like figures indicate like or equivalent parts:—

Fig. 1 shows the complete clock in section, and

Fig. 2 shows a form of hanger suitable therefor.

Fig. 3 shows a form of suspension suitable for chains or rods, and

Fig. 3^A shows a side view thereof.

Referring to Fig. 1—A shows the disc on which the clock is built, and which may be of either wood or metal, and circular or other forms.

In the figures it is shown circular and of metal with a wired edge A^2.

B shows the dial plate which may be separate, and be attached to the disc A or embossed on the disc or painted or otherwise formed.

C shows the bezel which may be of metal and of a suitable form. D shows the protecting glass which is usually employed to protect the dial and hands from dust and damage.

F and G show the minute and hour hands respectively.

E shows the electrical impulse movement, which is enclosed in the airtight metal case H, and which is provided with a well fitting lid or cover J. H^1 shows packing which may be placed between the disc A and the case H. K shows the terminals which may be fixed in the positions shown. K^1 shows the connecting wires from the magnet bobbin of the impulse movement, and which pass through an airtight gland K^2.

L shows a cranked hanger with a large bearing surface, the latter being provided to rest against a flat wall, a feature of the construction being that it is of sufficient width to prevent the clock from rocking on said wall. A rear elevation of this hanger is shown at Fig. 2.

As a modification, three fittings may be employed, one at the top of the disc to support the clock on a nail or screw, and one on each side at the back of the disc to prevent the clock from rocking on the wall.

Figs. 3 and 3^A show a form of support which enables the clock to be suspended from a ceiling or from a roof girder by means of chains, rods or equivalent.

M, M^1 show two metal brackets which are suitably bent as shown in Fig. 3^A. The horizontal parts M^2 are slotted at M^3 and in these slots are placed the screwed shanks N^1 of the supporting eyes N, the arrangement being that the shanks N^1 may slide to and fro so that the dial may be suspended perpendicularly or be tilted forward or backward as required.

Nuts such as N^2 are provided to secure the eyes N in the desired positions.

Having now particularly described and ascertained the nature of our said inven-

tion and in what manner the same is to be performed, we declare that what we claim is:—

1. In an electric impulse clock, a construction comprising a disc, on one side of which is disposed the dial, hands, glass and bezel, and on the other side of which is disposed an impulse movement and its protecting or airtight cover, together with a fixing or suspending device secured to the said disc, as herein described.

2. In an electric impulse clock as in Claim 1, an adjustable suspension comprising slotted brackets and supporting eyes capable of movement in the said slotted brackets, the whole disposed so that the clock face may be hung perpendicular or be inclined forward or backward as herein described, and illustrated.

3. An electric impulse clock constructed and supported as herein described and illustrated.

Dated this 26th day of September, 1923.

I. HARDY PARSONS.
ALFRED E. J. BALL.

Redhill: Printed for His Majesty's Stationery Office, by Love & Malcomson, Ltd.—1924.

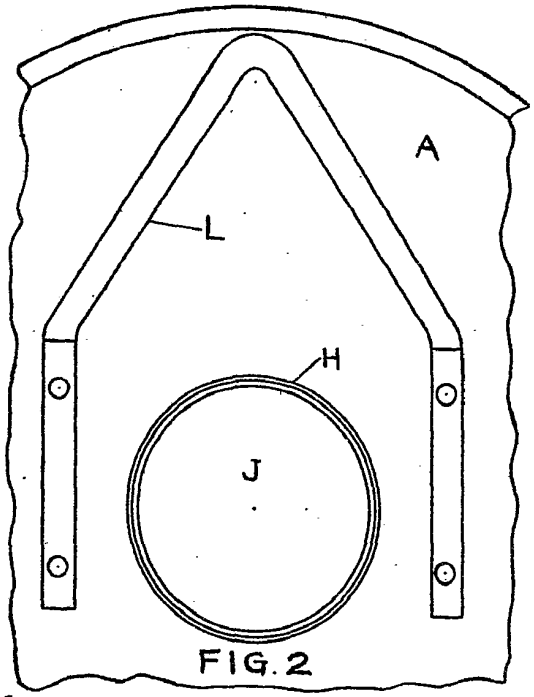

FIG. 2

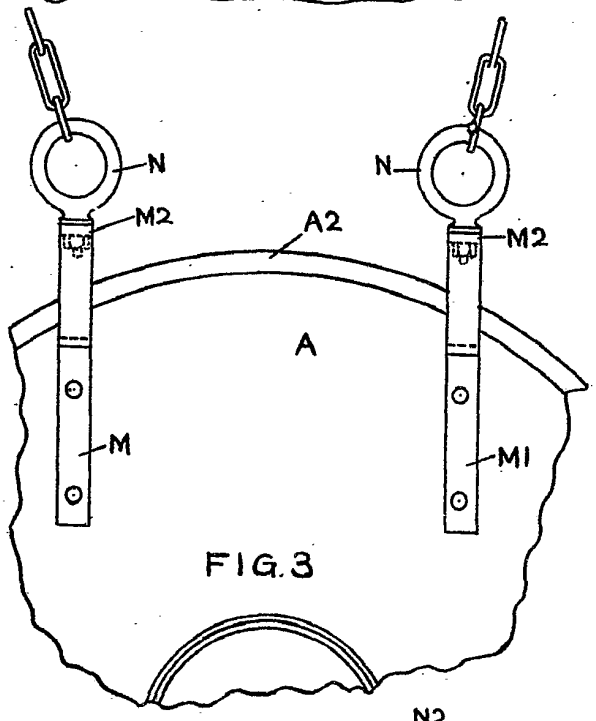

FIG. 3

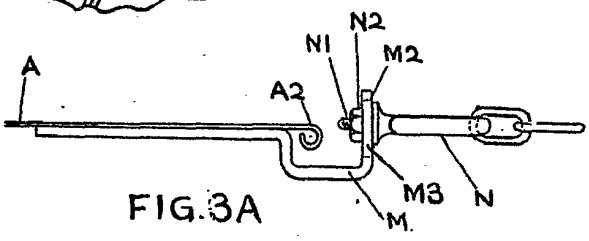

FIG. 3A

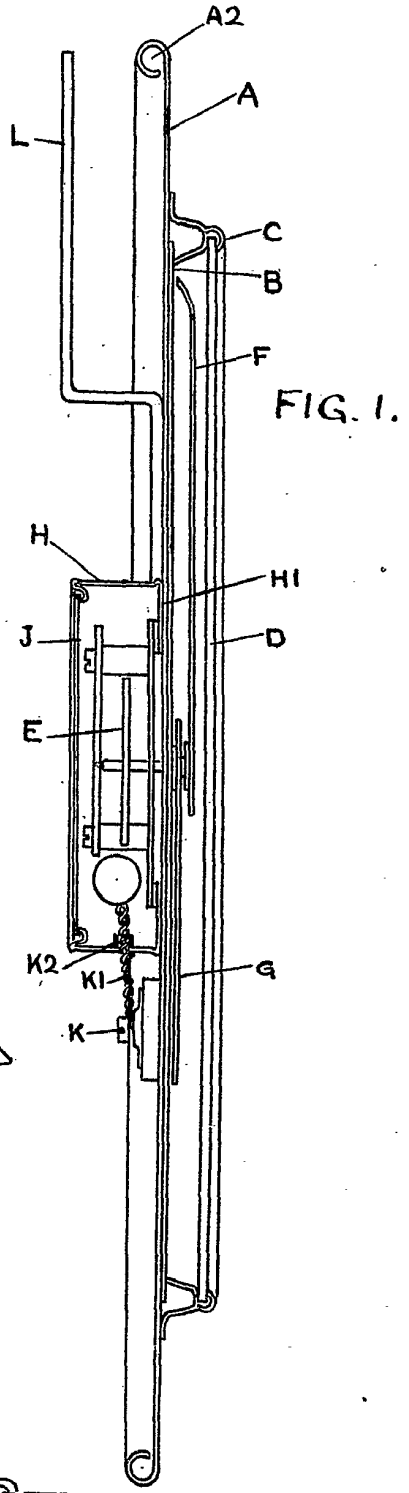

FIG. 1.

Malby&Sons, Photo-Litho