N° 15,833 A.D. 1901

Date of Application, 6th Aug., 1901

Complete Specification Left, 24th Jan., 1902—Accepted, 8th May, 1902

PROVISIONAL SPECIFICATION.

Improvements in or relating to Armatures for Electric Clocks.

(A communication from abroad by the ACTIENGESELLSCHAFT "MAGNETA" (ELECTRISCHE UHREN OHNE BATTERIE UND OHNE CONTACTE), of Zürich, Switzerland.)

I, WILLIAM LLOYD WISE, of 46 Lincoln's Inn Fields, in the County of London, Consulting Engineer and Chartered Patent Agent, do hereby declare the nature of this invention to be as follows:—

This invention has reference to improvements in armatures for reversible current subordinate clocks. According thereto the armature is constructed with a bent portion that is arranged parallel with and quite close to the surface of the magnet without being in contact therewith and is made comparatively large in area so that a large surface is provided, thereby enabling smaller magnets to be used.

An example of apparatus according to this invention is shown in the accompanying drawings, in which Fig. 1 is an elevation, and Fig. 2 is a plan.

3 is an armature constructed with a bent portion that is arranged parallel to a magnet 4. The armature 3 is attached to a tube 6 which is placed on a pin 7 secured to the base plate, so that the armature can oscillate as well known in front of the poles of the electromagnet about the pin 7. On the bent portion of the armature there is provided in line with its axis of oscillation, a short pin 8 which projects upwardly, so as to prevent the armature, which is powerfully attracted by the magnet 4, from coming into contact with the said magnet. The bent portion of the armature is made comparatively large in area, so that a large and efficient surface is provided, thereby enabling very small magnets to be used, whilst at the same time producing a powerful polarity of the armature.

On the tube 6 there is mounted an arm 9 whose free end is connected to one end of a spring 15. The other end of the spring 15 is attached to a pallet lever 11, 12 which is adapted to oscillate on a stud 10. The point of connection of the spring 15 with the arm 9 is located close to the stud 10, whilst the point of connection of the lever 11, 12 with the said spring is located at a considerable distance from the stud 10, so that when the armature is moved by the current passing through the electromagnet the ends of the lever will make a considerable to-and-fro movement. The ends of the arms 11 and 12 of the lever are provided with pins or pallets 13 and 14, which, when the lever is moved about the stud 10, come alternately into contact with the teeth of a wheel 16 so as to move the said wheel forward each time by one tooth and then hold it.

Dated this 6th day of August 1901.

W. LLOYD WISE,
46 Lincoln's Inn Fields, London, W.C.
Chartered Patent Agent.

[*Price 8d.*]

N° 15,833.—A.D. 1901.

Improvements in or relating to Armatures for Electric Clocks.

COMPLETE SPECIFICATION.

Improvements in or relating to Armatures for Electric Clocks.

(A communication from abroad by the ACTIENGESELLSCHAFT "MAGNETA" (ELECTRISCHE UHREN OHNE BATTERIE UND OHNE CONTACTE), of Zürich, Switzerland.)

I, WILLIAM LLOYD WISE, of 46 Lincoln's Inn Fields, in the County of London, Consulting Engineer and Chartered Patent Agent, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention consists of improvements in armatures for reversible-current subordinate clocks. According thereto the armature is constructed with a bent portion that is arranged parallel and quite close to the surface of the permanent magnet without being in contact therewith and made comparatively large in area so that a large surface is provided, which enables a very small permanent magnet to be used.

An example of apparatus according to this invention is shown in the drawings filed with my Provisional Specification, in which Fig. 1 is an elevation, and Fig. 2 is a plan.

3 is an armature constructed with a bent portion that is arranged parallel to a permanent magnet 4, whose downwardly bent end is attached to the cores of the electromagnet. The armature 3 is attached to a tube 6 which is placed on a pin 7 secured to the base plate, so that the armature can oscillate as well known in front of the poles of the electromagnet about the pin 7. On the bent portion of the armature there is provided in line with its axis of oscillation, a short pin 8, which projects upwardly so as to prevent the bent portion, which is powerfully attracted by the permanent magnet 4, from coming into contact with the said permanent magnet. The bent portion of the armature is made comparatively large in area, so that a large surface is offered to receive the influence of the permanent magnet, which enables a very small permanent magnet to be used and at the same time a powerful polarity of the armature to be produced.

On the tube 6 there is mounted an arm 9 whose free end is connected to one end of a spring 15. The other end of the spring 15 is attached to a pallet lever 11, 12 which is mounted to oscillate on a stud 10. The point of connexion of the spring 15 with the arm 9 is located close to the stud 10, whilst the point of connexion of the lever 11, 12 with the said spring is located at a considerable distance from the stud 10, so that when the armature is moved by the current passing through the electromagnet the ends of the lever makes a considerable to-and-fro movement. The ends of the arms 11 and 12 of the lever are provided with pins or pallets 13 and 14, which, when the lever 11, 12 is moved about the axis of its stud 10, come alternately into contact with the teeth of a wheel 16 so as to move the said wheel forward each time by one tooth and then hold it.

Having now particularly described and ascertained the nature of the said invention and in what manner the same is to be performed I declare that what I claim is:—

1. An armature for a reversible-current subordinate clock, comprising an extension (3) which is bent at an angle to the armature and parallel to the permanent magnet (4), is located close to the surface of the permanent magnet without being able to come into contact therewith, and is formed so as to offer a

large surface to the action of the permanent magnet, so that a very small permanent magnet can be used.

2. The improved armature constructed, arranged, and operating as hereinbefore described with reference to and shown in the drawings filed with my Provisional Specification.

Dated this 24th day of January 1902.

W. LLOYD WISE,
46 Lincoln's Inn Fields, London, W.C.
Chartered Patent Agent.

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WISE'S PROVISIONAL SPECIFICATION. *(1 SHEET)*

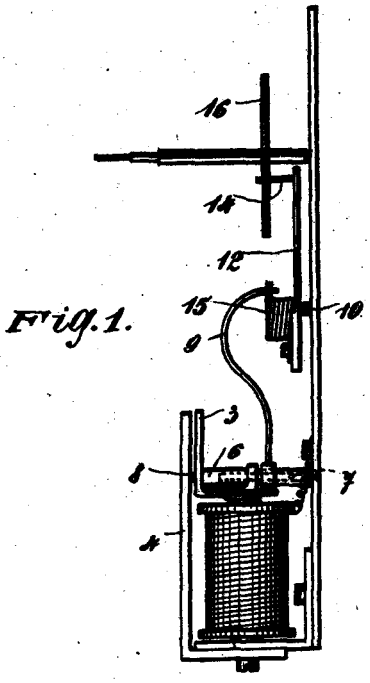

Fig. 1.

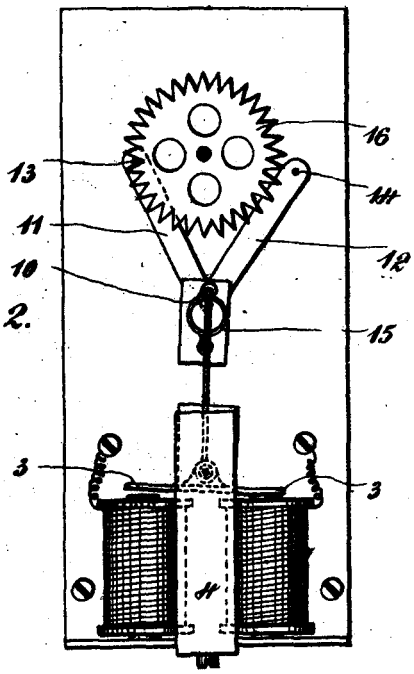

Fig. 2.

[This Drawing is a reproduction of the Original on a reduced scale.]

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