(No Model.)

W. S. INGRAHAM.

CLOCK CASE.

No. 589,436. Patented Sept. 7, 1897.

Fig. 1.

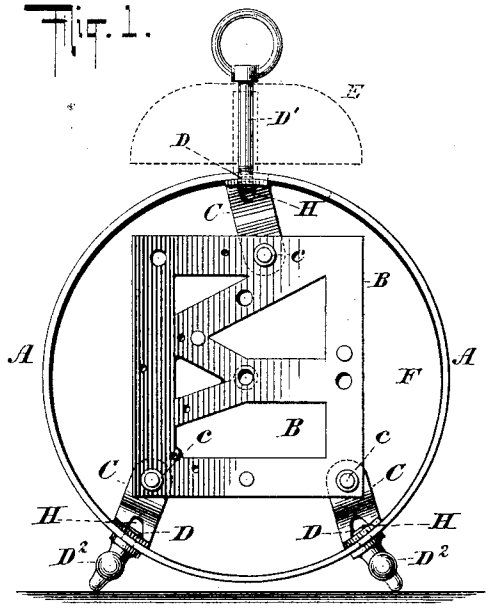
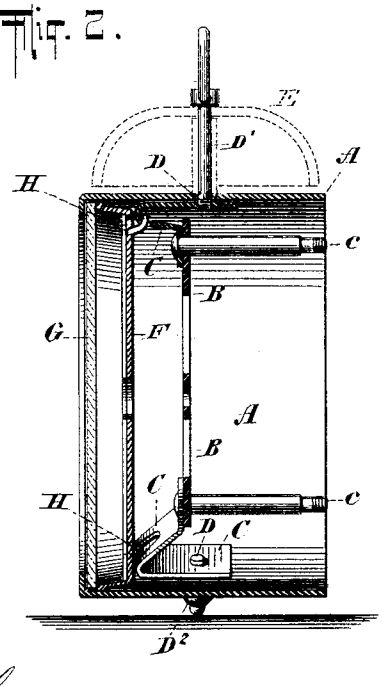


Fig. 2.



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WILLIAM S. INGRAHAM, OF BRISTOL, CONNECTICUT, ASSIGNOR TO THE E. INGRAHAM COMPANY, OF SAME PLACE.

CLOCK-CASE.

SPECIFICATION forming part of Letters Patent No. 589,436, dated September 7, 1897.

Application filed December 19, 1896. Serial No. 616,237. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. INGRAHAM, of Bristol, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Clocks; and I do hereby declare the following to be 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 lever-clocks the main constituent parts of which may be said to consist usually of a small round metal frame, a dial, a movement attached to a frame, and a back. It is desirable that these parts and their arrangement and construction should be such as to promote cheapness in manufacture, thus bringing them within the reach of those in need of timepieces at small expense, and to permit the parts to be separated easily and rapidly and without injury for purposes of examination and repair.

To promote these and other objects, my invention consists in the construction and arrangement of the parts of such a clock, as is hereinafter particularly described, and pointed out in the claims.

Reference is to be had to the accompanying drawings, and to the letters marked thereon, forming a part of this specification, the same letters designating the same parts or features wherever they occur.

Referring to the drawings, Figure 1 is a sectional vertical view of a clock of the character described, looked at from the back. Fig. 2 is an upright sectional view, somewhat in perspective, looked at from the side.

A is the clock-case, herein represented as round and provided at the top with a bell E for sounding an alarm.

B is the frame, to which the clock-movement (not shown) is attached by the studs *c c c*.

C C C are strips of metal which are fixed at one end to the frame B by the use of the lower ends of the studs *c c c* as rivets. They are then bent outwardly and returned, forming angles the apices of which press against the inner face of the dial F and hold said dial firmly in place against the rim G of the frame of the case. Small tongues are struck up from the metal of the dial and inserted into apertures in the apices of one or more of the strips C to fix the position of the dial at H H, where they are clenched on the inside of the strips. These must be so located that the figures designating the hours shall come in the right position. Clocks of this character ordinarily stand upon two feet D^2 D^2 and are carried by a ring or other handle attached to the case by a stud D'. I screw-thread the inner ends of said stud and said feet and passing the screw-threaded ends through apertures in the case engage them with tapped holes in the metal strips C C C, so as to bind the strip firmly to the case at D D D.

The nature of my invention now appears clearly. When the clock-movement is attached to the frame B, at the same time by means of the studs *c c c* the strips C C C are firmly fastened thereto, so that there may be said to be only four parts to the clock—the case A, the frame B, to which the attaching means are so fastened as to be substantially integral therewith, the dial F, and the back. (Not shown.) The dial is attached to the strips by clenching the tongues upon the strips and the whole inserted into the case and attached by the screws at D D D. The strips bearing against the dial hold it firmly in position against the rim of the case, and the tongues at H hold it from turning. At the same time they support the movement in its proper position in the case, and the feet and bell stand in their proper positions.

When it is desired to dismember the clock for purposes of examination, repair, oiling, or cleaning, it is apparent that the result can be attained very easily and without injury to the parts by simply removing the screws at D D D. This is a result which has not heretofore been attained in clocks of this description.

It is apparent that changes can be made in the details of form and construction without departing from the spirit of my invention, which consists in the novel combination of case, frame, dial, and attaching-strips. For example, I have illustrated a round clock. The case of the clock may be of any other form, when the number of strips may be conveniently varied to suit the changed circumstances.

I claim as my invention the following-described novel features, substantially as hereinbefore specified, namely:

1. In a clock of the kind herein described the frame for supporting the mechanism, a dial with tongues clenched into the strips at H, and the herein-described strips bent out and turned upon themselves, the ends being attached firmly to the frame and case respectively and the angles bearing against the dial, said strips holding the dial and movement-frame firmly in position within the case.

2. In clocks of the kind herein described, the combination with the case, movement-frame, and dial provided with tongues clenched into the strips, of strips, formed as described, fastened to the frame by rivets on the ends of the movement-supporting studs at one end, and to the case by screws on the ends of the supporting parts, all constructed as described to hold the dial, movement-frame, and supporting parts firmly in their respective proper positions.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WILLIAM S. INGRAHAM.

Witnesses:
CHARLES ROE,
JOHN J. JENNINGS.