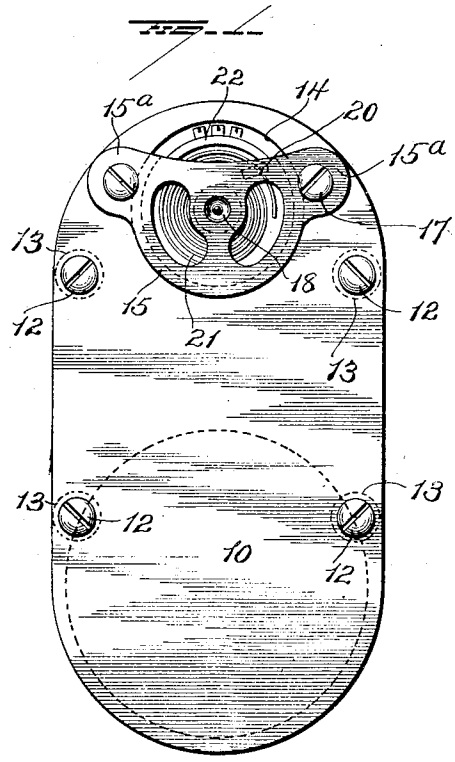
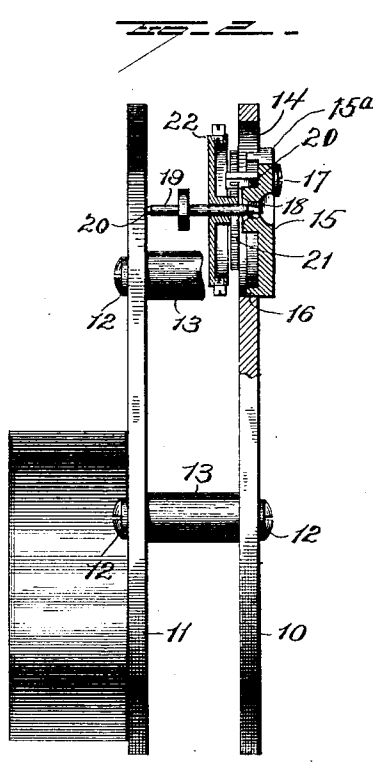
R. C. LEWIS.

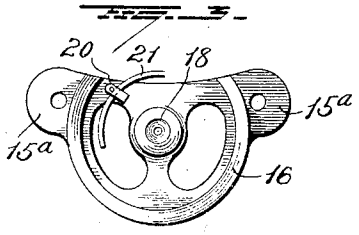
TIME LOCK MOVEMENT.

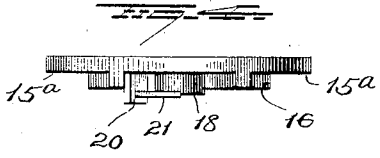
APPLICATION FILED JULY 29, 1918.

1,283,233. Patented Oct. 29, 1918.









Witnesses
E. Nottingham
G. F. Downing.

Inventor
R. C. Lewis
By Seymour & Bright
Attorneys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ROLLIN C. LEWIS, OF STAMFORD, CONNECTICUT, ASSIGNOR TO THE YALE & TOWNE MANUFACTURING COMPANY, OF STAMFORD, CONNECTICUT.

TIME-LOCK MOVEMENT.

1,283,233. Specification of Letters Patent. Patented Oct. 29, 1918.

Application filed July 29, 1918. Serial No. 247,301.

To all whom it may concern:

Be it known that I, ROLLIN C. LEWIS, a citizen of the United States, and a resident of Stamford, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Time-Lock Movements; 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 an improvement in time lock movements and particularly to the bridge which supports the balance wheel.

In the time locks as now used the balance wheel is supported by a relatively fixed bridge which is located or positioned by dowel pins and secured to the outer plate of the time movement by a screw, hence the slightest error in the location of the screw or the dowel will throw the balance wheel staff out of correct alinement.

The object of my invention is to greatly simplify the operation of locating and properly alining the balance wheel staff, and also of securing the bridge to the movement plate, and it consists in a time movement plate having an arc shaped or circular seat for the bridge, and a bridge having a similarly shaped bearing resting on said seat, the balance wheel staff bearing in the bridge being concentric with said seat and bearing.

It further consists in the details of construction and combination of parts as will be more fully explained and pointed out in the claims.

In the accompanying drawings Figure 1 is a view in elevation of a time movement embodying my improvement; Fig. 2 is an edge view partly in section; Fig. 3 is a view in rear elevation of the bridge, and Fig. 4 is a top plan or edge view of the latter.

10 and 11 represent respectively the front and rear plates of the frame carrying the time mechanism. These plates are secured together by screws 12 and are held separated and in parallel position by the sleeves 13 embracing the screws intermediate the plates. The front or outer plate 10 is provided near its upper end with a circular opening 14 in which the bridge 15 is seated. This bridge which is preferably of skeleton form as shown, is provided on its rear face with a circular flange or bearing 16 which conforms in size and shape with the circular seat or opening 14 in the plate 10 so that the bridge may be turned so as to bring the screw holes in the ears 15^a of the bridge 15 into alinement with screw holes in the plate 10, and is secured and locked against further turning movement by the screws 17. The bridge overlaps the front face of the plate 10, hence the circular bearing 16 on the rear face thereof operates to prevent any movement of the bridge within its seat, except such rotary movement as may be necessary to bring the screw holes in the ears of the bridge into alinement with the screw holes in the movement plate.

The bridge is preferably enlarged centrally as shown in Figs. 2 and 4 and this enlargement carries a bearing 18 for one end of the balance staff 19, which is supported at its other end in a bearing 20 in the rear plate 11 of the movement frame.

These bearings 18 and 20 for the balance staff 19 are in line with the axis of the bridge, and concentric with the bearing 16 and the seat in which the said bearing rests, so that movement of the bridge in its seat does not affect in the slightest the alinement of the balance staff.

The balance wheel staff 19 of the time movement is, as before explained, journaled in bearings in the rear plate 11 and the bridge 15 respectively, the bearing in the bridge being in the exact center of the latter so that the axis of the balance wheel staff is concentric with the axis around which the bridge may be turned. The hair spring stud 20 to which the outer end of the hair spring 21 is secured, is fixed to the bridge 15, the other end of the said spring being secured to the hub of the balance wheel 22 or to the staff 19.

With my improvement the bridge is not adjustable in the sense that it can be turned or is mounted to turn to adjust the hair spring, or to bring the impulse pin on the balance wheel in a direct line between the balance and pallet staff of the time movement, but is designed primarily to provide a construction by means of which slight errors in the location of the holding screws would be taken care of by reason of the fact that the balance staff is in line with the center of the bridge and would not be disturbed by these inaccuracies.

The opening in the plate may be a whole circle or a part thereof, and the bearing 16

on the bridge may be an arc of a circle, hence in the claims, where I refer to a circular seat or bearing I intend it to include a part of a circle only.

It is evident that many slight changes might be resorted to in the relative arrangement of parts shown and described without departing from the spirit and scope of my invention. Hence I would have it understood that I do not wish to confine myself to the exact construction and arrangement of parts shown and described but,

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

1. In a time movement, the combination of a movement plate having a circular seat, a bridge having a circular bearing to engage said seat and means for securing the bridge to the plate.

2. In combination of the plate of a time movement provided with a circular seat, a balance wheel and its staff the latter being concentric with the circular seat in the plate, a balance wheel bridge having a circular bearing which is seated on the circular seat in the plate and means for securing the bridge to the plate.

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

ROLLIN C. LEWIS.

Witnesses:
WILLIAM P. MOSELY,
CHARLES A. BERRY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."