(No Model.)

E. KUHN.

CLOCK.

No. 372,074. Patented Oct. 25, 1887.

Fig 1

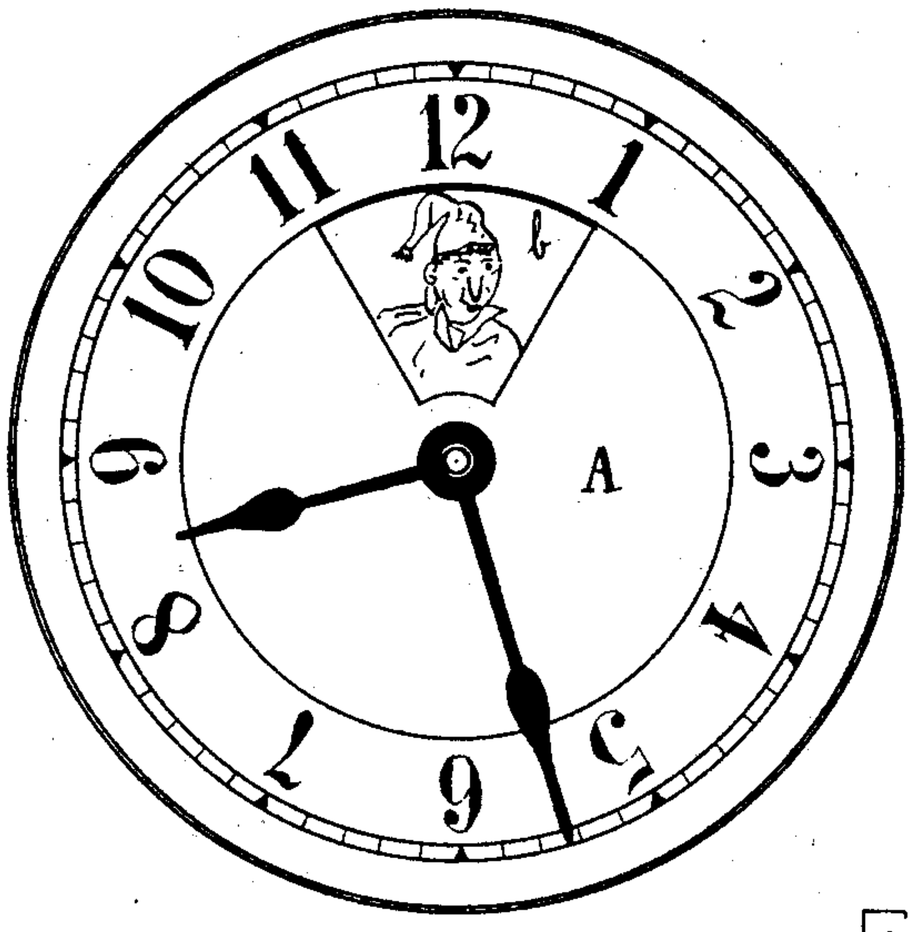


Fig 3

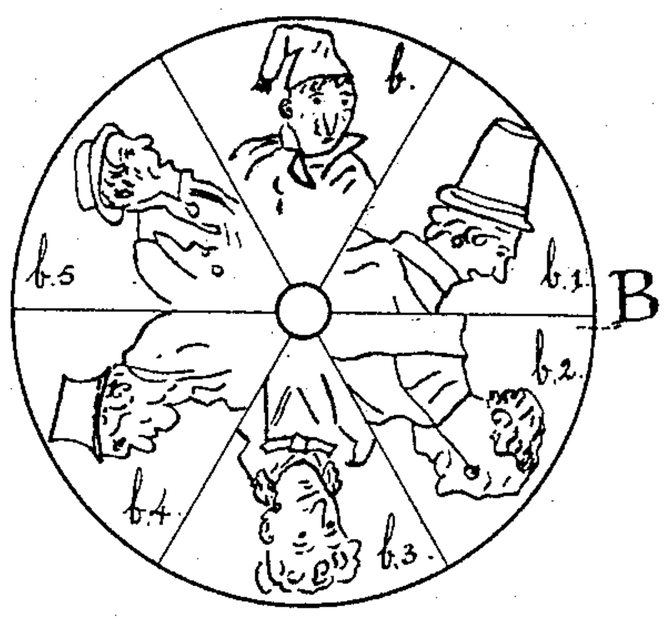
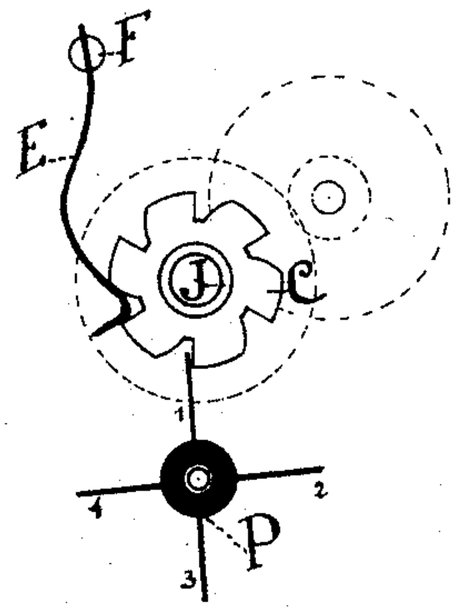


Fig 2



Witnesses

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UNITED STATES PATENT OFFICE.

EDMOND KUHN, OF BROOKLYN, NEW YORK.

CLOCK.

SPECIFICATION forming part of Letters Patent No. 372,074, dated October 25, 1887.

Application filed May 6, 1886. Serial No. 201,264. (No model.)

To all whom it may concern:

Be it known that I, EDMOND KUHN, a citizen of the United States of America, and a resident of the city of Brooklyn, county of Kings, and State of New York, have invented a new and useful Improvement in Clocks, of which the following is a specification, reference being made to the accompanying drawings, in which—

Figure I represents a face view of the dial of a clock with my improvement. Fig. II represents a plan view of the mechanical arrangement by which motion is imparted to the circular plate or disk. Fig. III represents a face view of the circular plate or disk which is placed back of the real dial, as hereinafter described.

The invention relates to a new attachment to clocks by which any desired set or series of figures, marks, signs, or symbols are made to appear successively and at regular intervals through the opening made in the dial of the clock, thereby attracting the eye of the beholder and causing him to fix his attention on the figures.

The invention consists in a circular plate or disk upon which any desired figure or representation is placed, or any desired set or series of figures or representations are placed, and which revolves on the hour-wheel tube, as hereinafter shown, exposing to view through the opening in the dial of the clock, successively and at regular intervals, such figures or other representations or illustrations as may be upon its face.

The invention also consists in other details of improvement, that are hereinafter specified.

In the drawings like letters of like kind represent like parts in all the figures.

A represents the dial of a clock, out of which a section is cut, exposing to view a portion of the circular plate or disk B. This opening in the dial may be of any desired shape. In the drawings I have made this opening wedge shape, the opening corresponding in shape and size with the sections into which I have divided the disk B. On the disk B may be placed any figure, character, representation, illustration, or other matter, or any set or series of figures, characters, representations, or illustrations, which may be desired. In the drawings, for the purpose of illustrating my invention, I have placed on the disk B a series of comical figures, b b' b^2 b^3 b^4 b^5, each one occupying a section on the disk B equal in size and shape to the opening in the dial A. As the disk B revolves behind the dial A, the figures b b' b^2 b^3 b^4 b^5 successively appear to the view of the beholder through the opening in the dial A. It therefore only remains for me to explain the mechanical arrangement or device by which the disk B is made to revolve so that the figures on its face will successively and at regular intervals of time appear. The disk B is placed on the wheel C, the perforation in the center of the disk fitting the hub J of the wheel C. As the wheel C revolves, the disk B will also revolve, as it is fast to the wheel C. The wheel C revolves upon the hour-wheel tube of the clock as an axial bearing. On the rim or periphery of the wheel C are cut teeth of the shape shown in the drawings, each tooth corresponding to a section of the disk B. In the drawings I have divided the disk into six sections, one for each figure. The wheel in this case must have six teeth, all of the same shape and of equal size. Thus, as one of these teeth is moved its own distance, the disk B will revolve one section, thus exposing to view through the dial A another figure.

To what would be the second-pinion in an ordinary clock I fasten a cap, P, having arms 1 2 3 4 extending from it at right angles with each other. These arms 1 2 3 4 engage with the teeth of the wheel C, causing the latter to revolve.

It will be readily perceived that as I have placed these arms at right angles one revolution of the pinion-cap P (which revolves once in every sixty seconds) will carry the disk B four sections, or one section every fifteen seconds, thus causing the disk B to revolve and exposing to view the figures b b' b^2 b^3 b^4 b^5 successively and at regular intervals of fifteen seconds each; but I do not confine myself to fastening the cap P to what would be the second-pinion in an ordinary clock, as I can add a pinion to carry this cap P when desired, and increase or diminish the velocity of the revolutions which the cap P is to make by driving the cap P by other wheels in the movement, as may be easily perceived.

By adding arms to or lessening the number of arms on the pinion-cap P the interval of time between the appearance of the several

figures may be increased or diminished, as may be desired. In order to hold the disk B stationary while not acted upon by the arms of the pinion-cap P, I employ a spring, E, set in a slot of the stud F, which is set on the plate of the clock.

The dotted lines, Fig. 2, represent part of the movement of the clock.

I claim—

1. The combination, in a clock, of the pinion-cap P, arms 1 2 3 4, wheel C, disk B, and dial A, substantially as herein shown and described.

2. The combination of the wheel C, rotating on the hour-wheel tube, with the disk B, and pinion-cap P, with arms extending therefrom and to engage with the teeth of the wheel C, substantially as and for the purpose herein shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 3d day of May, 1886.

EDMOND KUHN.

Witnesses:
FRANK M. CLUTE,
LOUIS WEIS.