(No Model.)

# A. & H. E. JUNGHANS.

## CLOCK.

No. 381,626. Patented Apr. 24, 1888.

Fig. 5

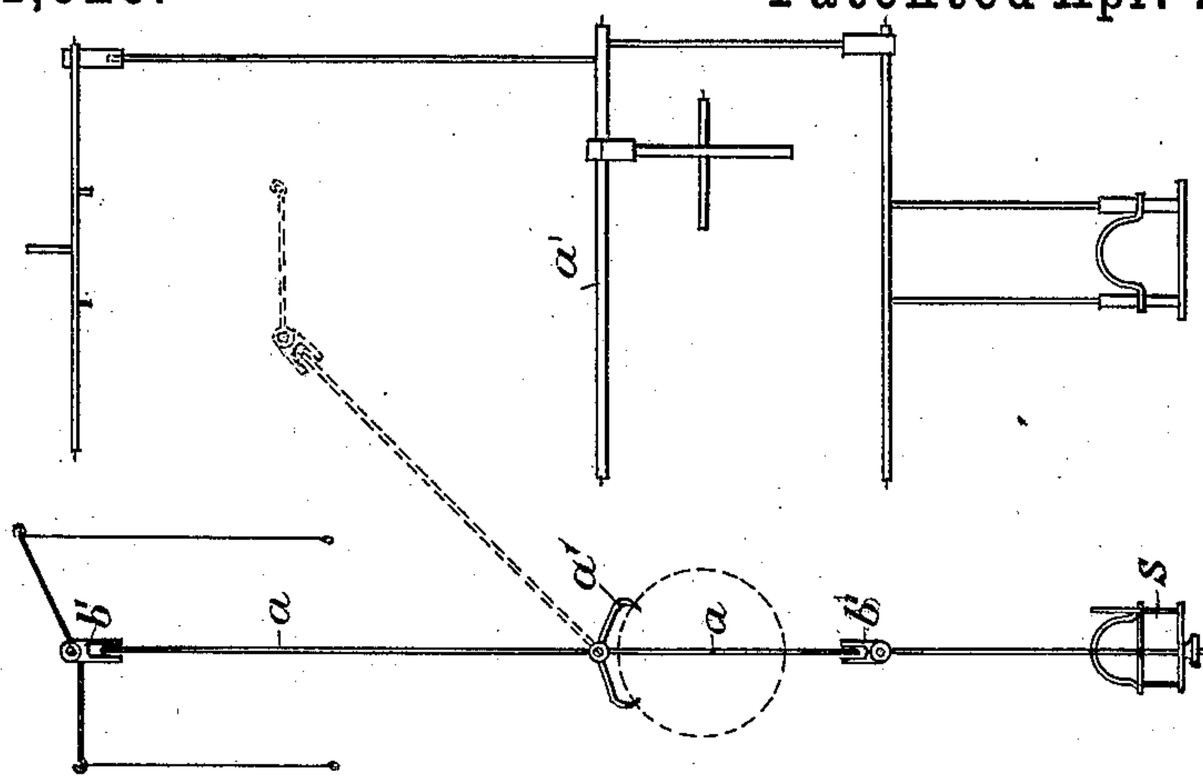


Fig. 4

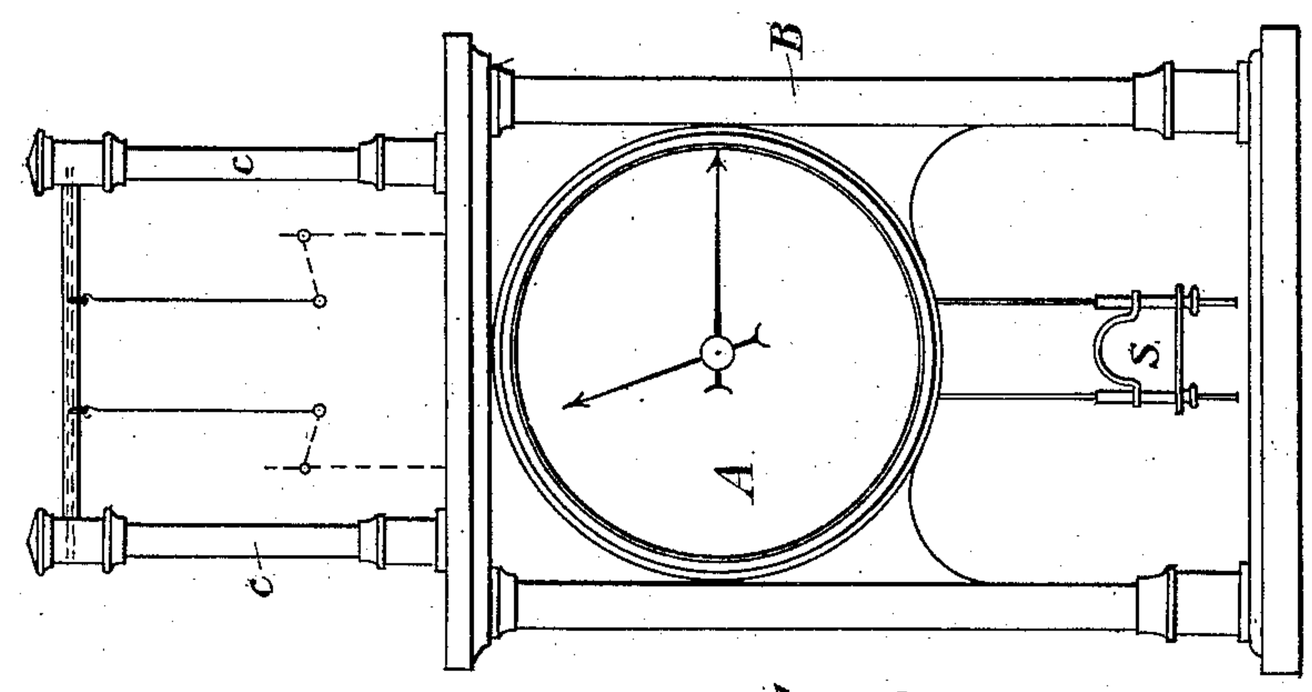


Fig. 3

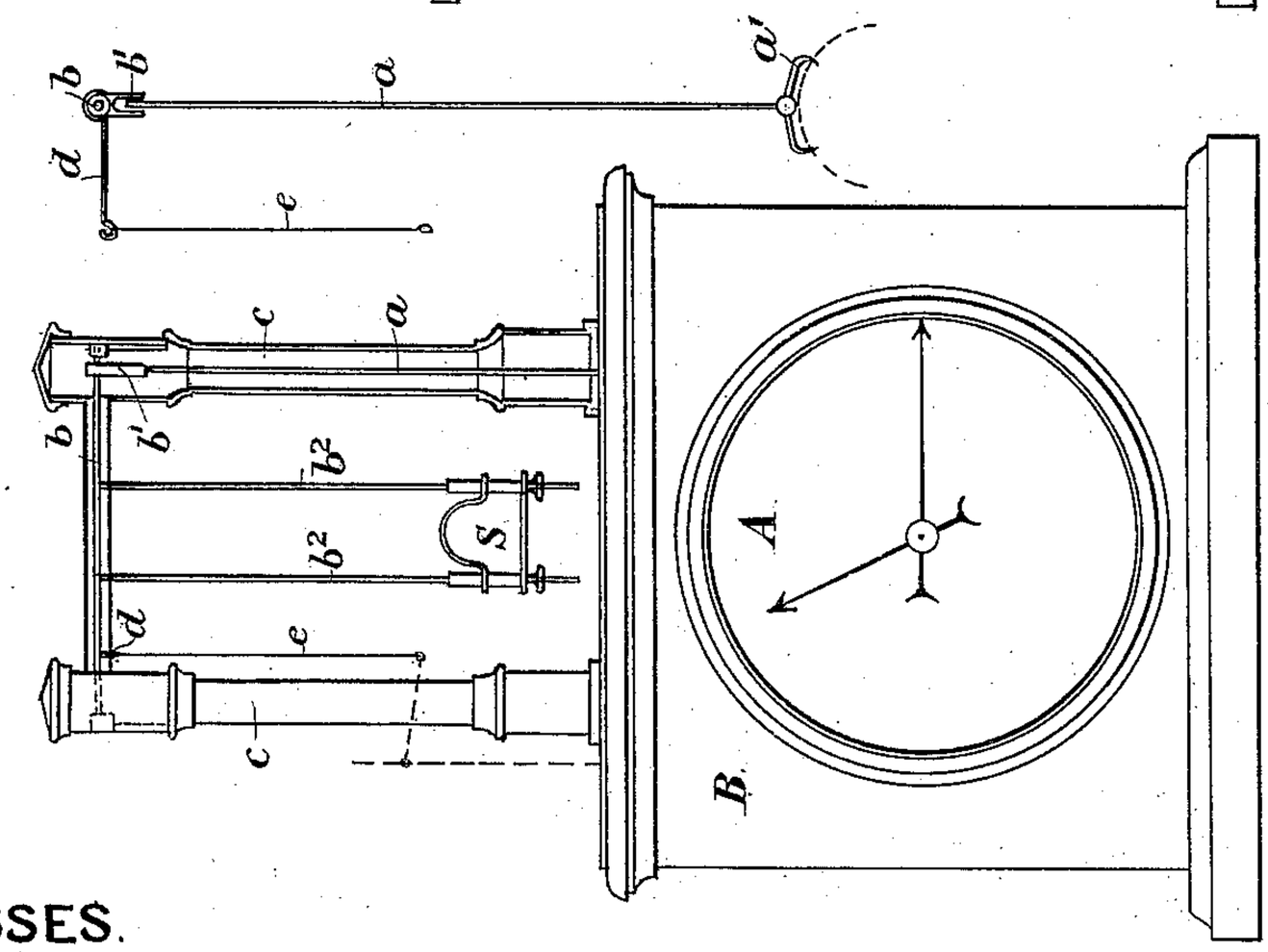


Fig. 2

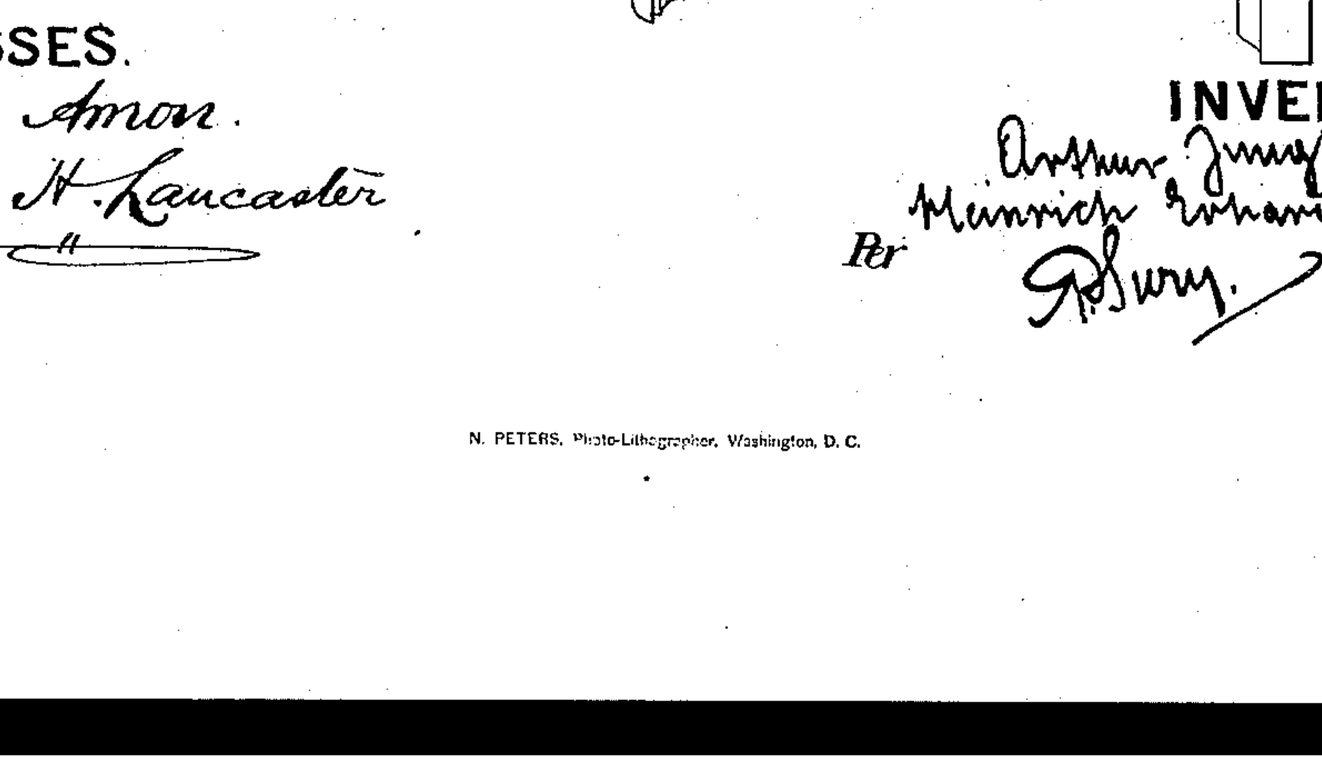


Fig. 1

WITNESSES.

Chas. Amon.

James H. Lancaster

INVENTOR.

Arthur Junghans.

Heinrich Richard Junghans.

Per R. Bury.

Attorney.

# UNITED STATES PATENT OFFICE.

ARTHUR JUNGHANS AND HEINRICH ERHARD JUNGHANS, OF SCHRAMBERG, WÜRTEMBERG, GERMANY.

## CLOCK.

SPECIFICATION forming part of Letters Patent No. 381,626, dated April 24, 1888.

Application filed October 20, 1887. Serial No. 252,875. (No model.) Patented in Germany September 18, 1886, No. 39,365.

*To all whom it may concern:*

Be it known that we, ARTHUR JUNGHANS and HEINRICH ERHARD JUNGHANS, of Schramberg, Würtemberg, Germany, have invented certain new and useful Improvements in Ornamental Clocks having Automatically Moving Figures, (for which we have obtained a German patent, No. 39,365, dated September 18, 1886,) of which the following is a specification.

Our invention relates to improvements in ornamental clocks having automatically-moving figures.

Our invention consists of mechanism connected with the escapement of clocks, whereby any suitable object is made to swing, and apparently swinging the pendulum of the clock, all of which will be fully described hereinafter.

In the drawings, Figure 1 represents a side or face view of a clock, in which the main features of our invention are illustrated in this figure. The pendulum of the clock is arranged above the dial. Fig. 2 is a detached view of the mechanism of Fig. 1. Fig. 3 is a modified form in which the swinging objects are arranged above the dial and the pendulum below it. Fig. 4 is a detached view of the modified mechanism of Fig. 3. Fig. 5 is also a modification of the mechanism.

Similar letters refer to similar parts throughout the drawings.

A represents the face or dial of the clock, arranged on the frame B, upon the uppermost surface of which are secured the hollow columns *c*. Within one of these columns is contained the guide-rod *a*, the lower end of which is connected with the escapement *a'*. The upper end of said guide-rod *a* plays between the prongs of the fork *b'*, which is mounted on the partly-rotating arbor *b*, each end of which having its bearing in proper journals secured to the columns *c*. There is rigidly fixed to the said arbor *b* the extending arm *d*, the outer end of which is connected with a cord, *e*, which in turn is connected with devices forming the swinging or otherwise movable figures. There is also connected with the said arbor *b* the rods $b^2$, the lower ends of which are connected with the adjustable weight S, both rods $b^2$ and weight S forming, of course, the pendulum of the clock.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The combination, in a clock-movement, of the escapement *a'*, connected with the guide-rod *a*, the upper end engaging with the fork *b'*, rigidly fixed to the arbor *b*, journaled within the columns *c*, the arm *d*, and cord *e*, adapted to operate and move any suitable objects, substantially as shown and described.

In testimony whereof we hereunto sign our names, in the presence of two subscribing witnesses, this 26th day of May, 1887.

ARTHUR JUNGHANS.
HEINRICH ERHARD JUNGHANS.

Witnesses:
EDUARD RETTICH,
JOSEPH GUT.