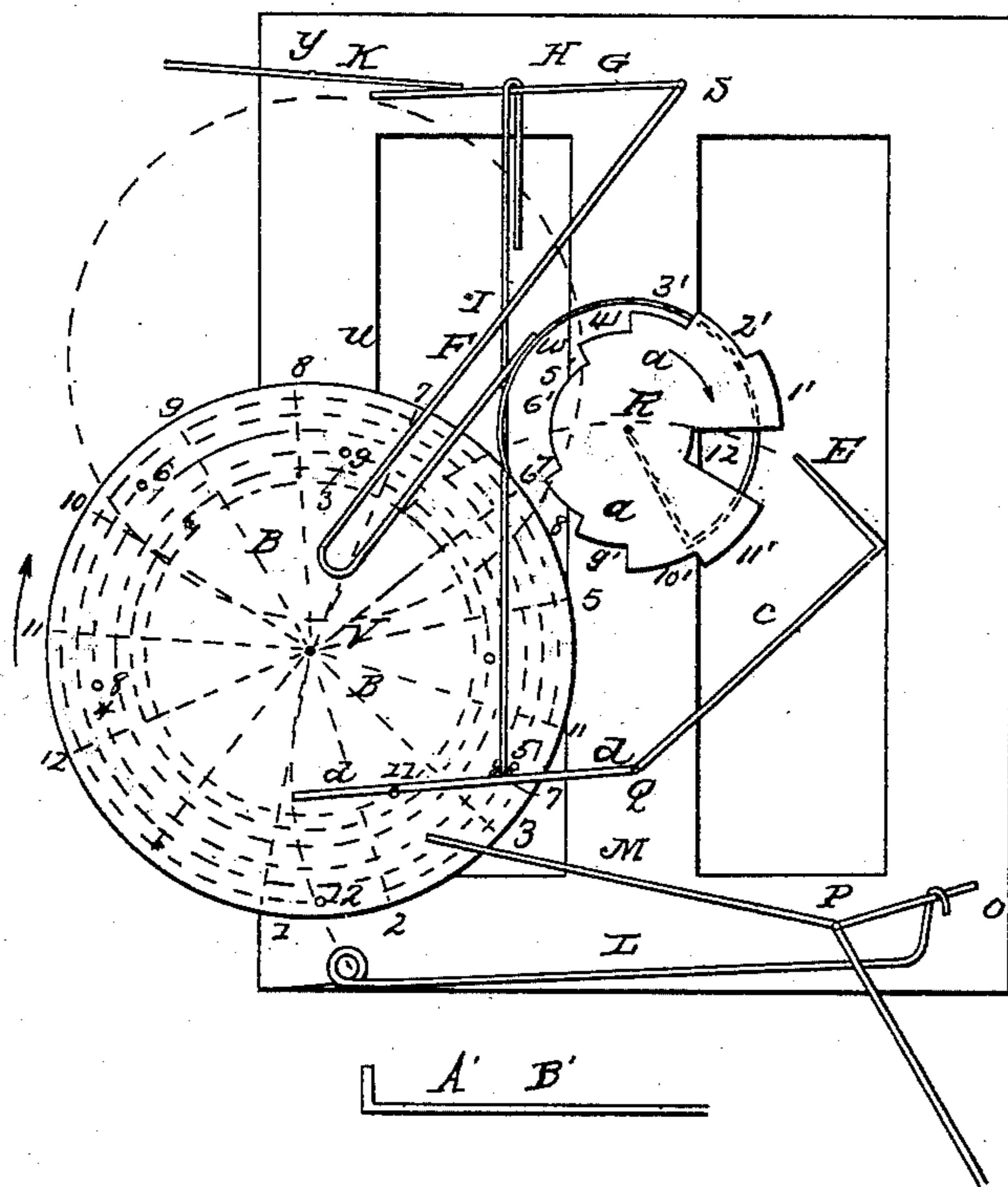


T. A. DAVIES.

Clock.

No. 4,687.

Patented Aug. 12, 1846.



Witnesses  
Braham Blackwell  
Henry D. Clark

Inventor  
T. A. Davies

# UNITED STATES PATENT OFFICE.

THOMAS A. DAVIES, OF NEW YORK, N. Y.

## CLOCK.

Specification of Letters Patent No. 4,687, dated August 12, 1846.

*To all whom it may concern:*

Be it known that I, THOMAS A. DAVIES, of the city, county, and State of New York, have invented a new and Improved Mode  
5 of Constructing the Striking Parts of Clocks; and I hereby declare the following to be a description of the same.

The nature of my invention consists in making a register to be put upon the hour  
10 socket of a clock, also connecting this register with stops upon the strike wheel by means of two arms working upon a center, also in placing new stops upon the strike  
15 wheel and in new combinations in the striking part.

*Description.*—The drawings are not made with reference to showing all the working parts of a clock complete; but merely such parts as are necessary to illustrate the new  
20 principles as the other parts would only serve to confuse. (See drawing.) Let R be the center of the hour and minute shafts. V the center of the strike wheel. S the center of the lifting shaft. Y the center  
25 of the fly wheel shaft. U the center of the gear wheel shaft from the strike wheel to the fly. M, P, the strike wire which plays upon 13 pins in the circumference of the strike wheel. L O the hammer spring.  
30 N the wire carrying the hammer which strikes the bell. T K the fly. S G the arm to stop the fly and raise the connecting rod H, J. S, F, (bent wire) the means by which the lifting part is raised by the bent wire  
35 R, W. *a, a*, the register. 1', 2', 3', 4' 5' 6', 7' 8' 9' 10' 11' 12' being indentures each one answering for an hour except the indentures marked 5', 6', 7' which answers for 3 hours,  
40 *d d*. C E arms upon a center shaft 2, one leading to the register, the other to pins or stops marked 12, (1.11) (2.10), (3, 9), (4, 8), (5, 7) and 6 upon the strike wheel. The end of the arm *d, d*, made as is represented at A' B' turned toward the wheel  
45 and made a little hollowing so as to catch the pins more firmly, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, being pins against which the strike wire M, P, plays. Now suppose the clock in operation and the center shaft connected in the usual way with the time works.  
50 We will also suppose that the hook on the end of the arm *d d* has just left the stop pin 12, and that the end of the arm of the lever C, E, has left the space on the register marked 12, and that the lifting rods and  
55 works are all in the position represented in

the drawing. The register being firmly attached to the hour socket will of course travel with it, and when the register will have so far progressed that the lift wire  
60 S F falls from the bent wire R, W, the arm *d, d*, will fall at the same moment and carry the end E of the lever C, E, onto the division on the register marked 1' and the end of the arm *d d* will fall into such a position  
65 as that it will catch a pin in the strike wheel marked (1, 11). The fly when the lift wires drop will be liberated and striking parts commence to move and of course the pin on the opposite side of the strike wheel at 3  
70 will catch the arm M P and cause one blow upon the bell with the hammer. But before another strike pin comes to the arm M P the further progress of the wheel is stopped by the pin (1, 11) catching the end of the  
75 lever *d, d*, so that in this position the clock strikes one. Let the works again progress in a short time the bent wire on the center shaft will begin to raise the lifting parts and at the moment the arm *d, d*, is raised  
80 from the pin (1, 11) the wire S, G, comes within range of the stop on the fly wheel and the clock is prevented from striking till the end of the hour when the lifting parts again fall and the end of the arm C, E, falls  
85 on the division marked 2 on the register and the end of the lever *d d* into the next outward consecutive circle and the clock will strike two in the same way as before and stop upon the pin marked (2, 10). The  
90 same for 3, 4, and 5. It now strikes 6 and 7 upon the same circle that it struck 5 upon and then commences its course back toward the center of the strike wheel striking alternately 8, 9, 10 and 11 upon the same pins  
95 and upon the same circles upon which it struck 4, 3, 2, and 1. It strikes 12 in the same way by passing from 11 to 12 on the register and stop pins. There are here described seven pins or stops arranged in six  
100 consecutive circles and it is entirely conventional upon which of the circles the pins are placed provided always that the register is made to correspond and that the pins 6 and (7, 5) are on the same circle. The same ob-  
105 ject can be accomplished with any number of pins or stops on the strike wheel from 7 to 12. In case 12 wire used arranged in 12 consecutive circles upon the strike wheel and placed regularly from in to out or from  
110 out to in the register would assume the form of the common snail but of course applied

for different objects and to serve different ends. The same end could be accomplished by having a separate wheel upon the strike wheel shaft or arms to run from the strike  
5 wheel shaft to hold the stops.

What I claim as new and original and desire to secure by Letters Patent is—

1. Applying to the hour socket of a clock a register made as above described for the  
10 purpose of counting off as the hours go around to stops upon the strike wheel or to stops arranged upon the strike wheel shaft.

2. I also claim the application of two arms from a center shaft essentially as  
15 above described the end of one of which strikes upon a register as above described guiding the end of the other to stops upon

the strike wheel or to stops arranged upon the strike wheel shaft.

3. I also claim the new mode of stopping 20 the striking parts of a clock by means of pins or stops arranged upon the strike wheel or upon stops arranged upon the strike wheel shaft, essentially as above described.

4. I also claim the combination in a clock 25 of the lifting part, the stops arranged as above described, the two arms form a center for the objects above described, and the register made and applied as above described, all together or any two together.

THOS. A. DAVIES.

Witnesses:

RANSOM BLAKESLEE, Jr.,  
HENRY D. CLARK.