

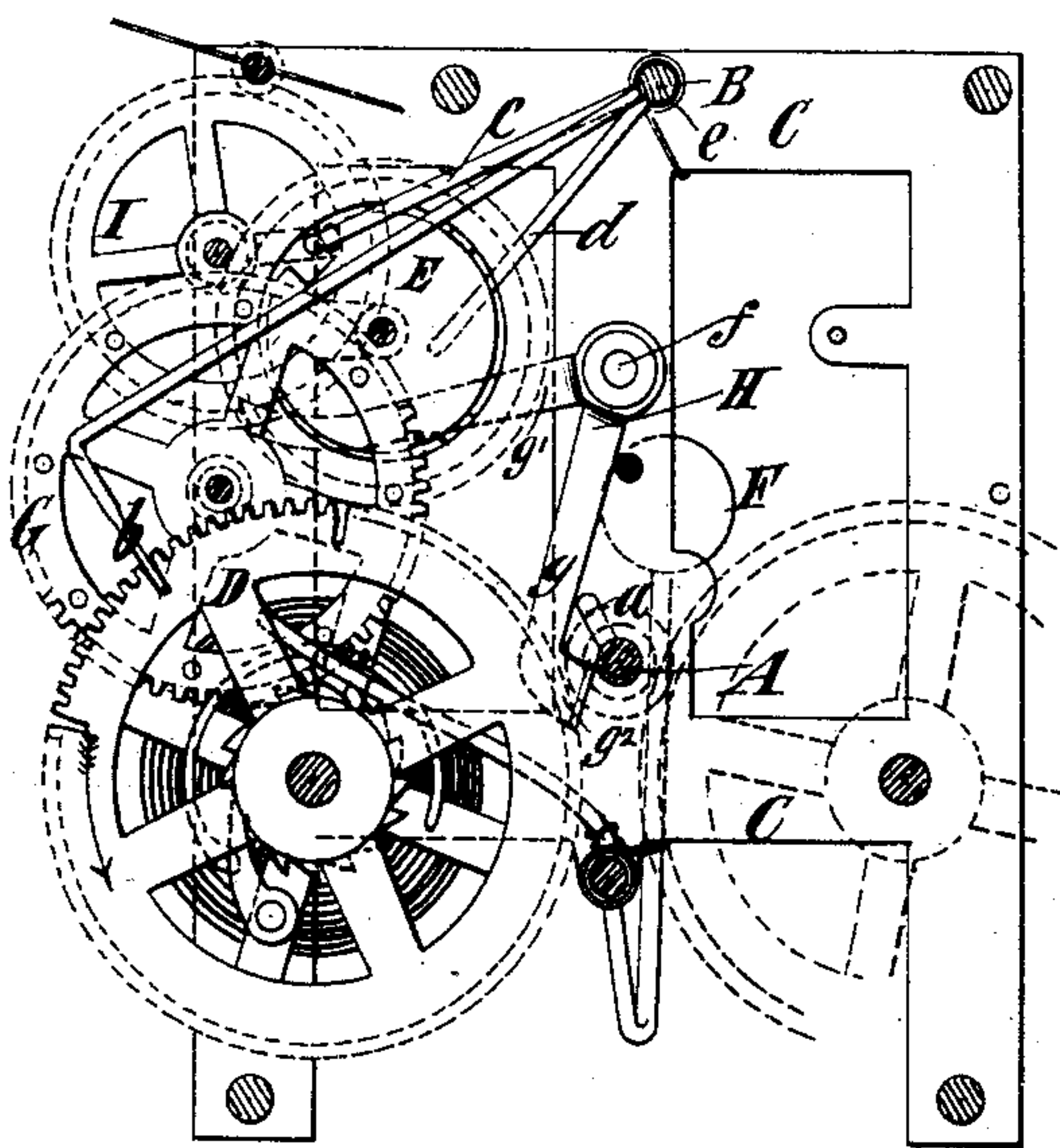
(No Model.)

W. D. DAVIES.  
STRIKING MECHANISM FOR CLOCKS.

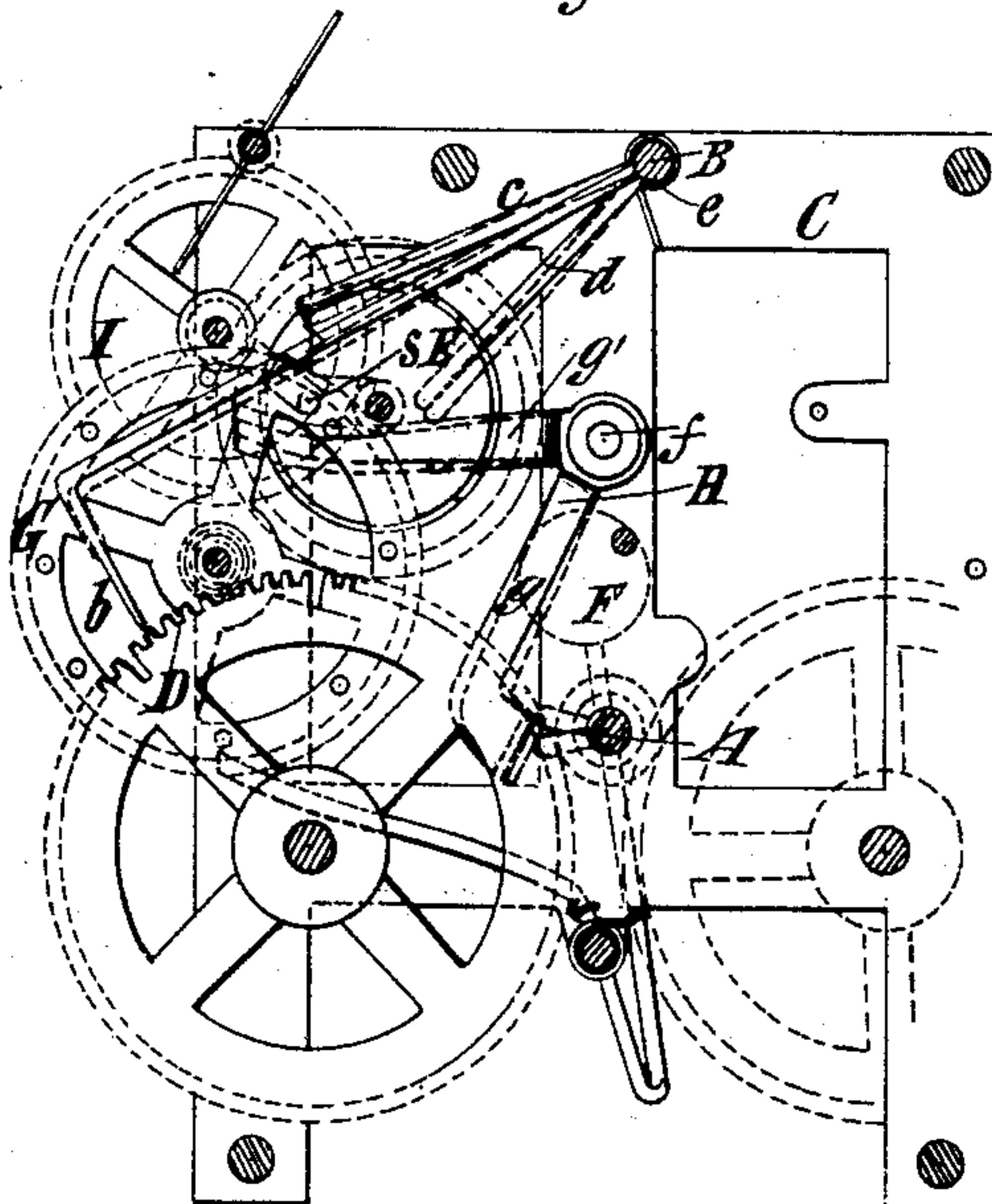
No. 259,505.

Patented June 13, 1882.

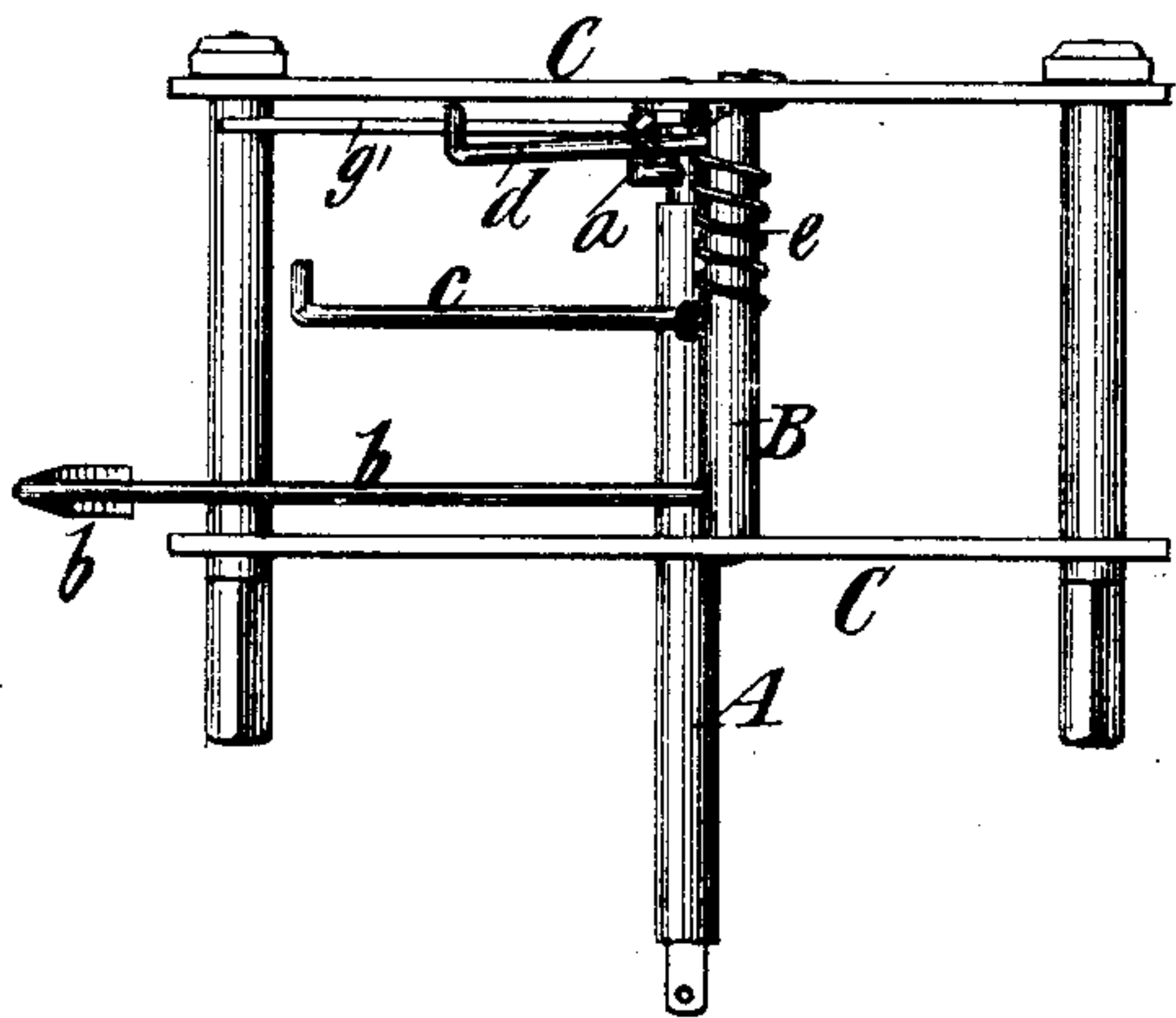
*Fig 1.*



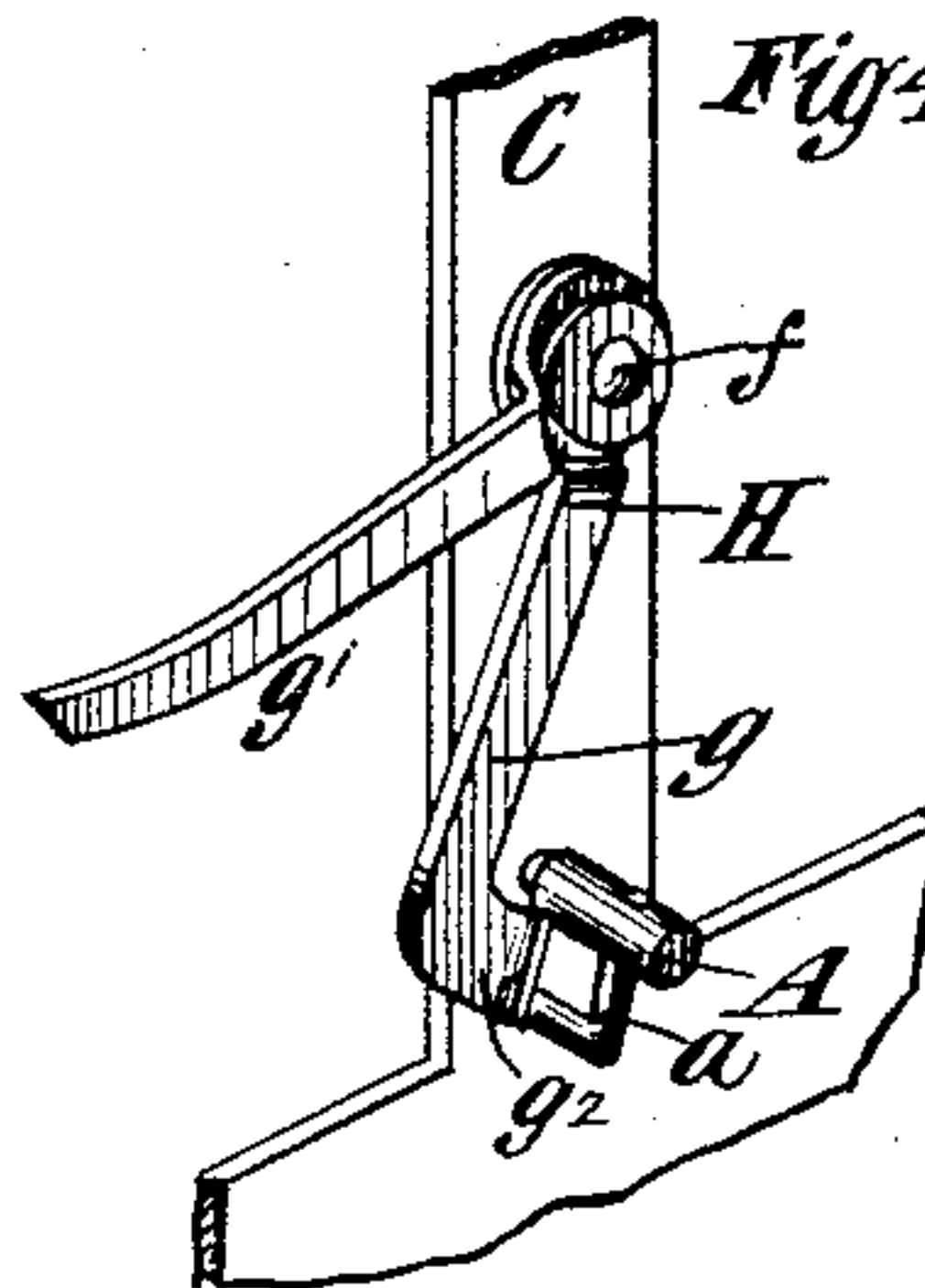
*Fig 2.*



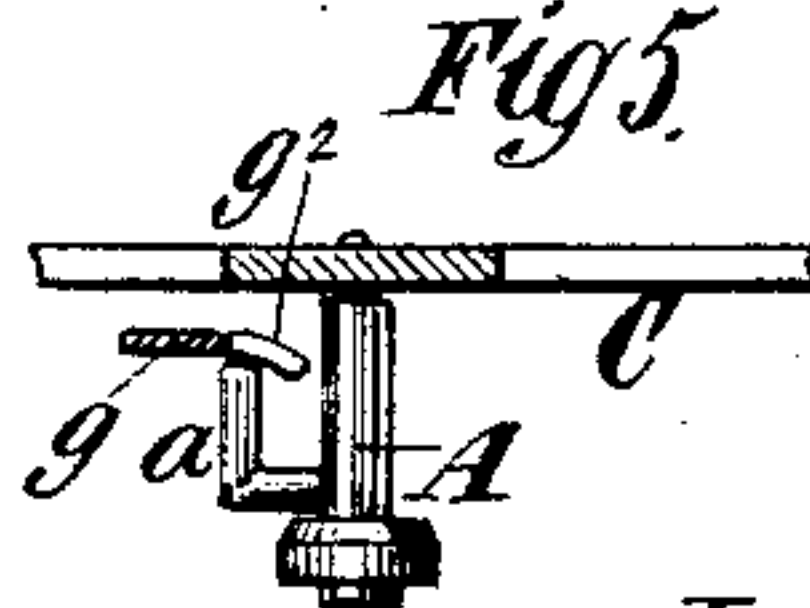
*Fig 3.*



*Fig 4.*



*Fig 5.*



Witnesses

Pres R. Haynes  
George H. Bolts

Inventor

Walter D. Davies  
by his Attorneys  
Brown & Brown



# UNITED STATES PATENT OFFICE.

WALTER D. DAVIES, OF BROOKLYN, NEW YORK, ASSIGNOR OF ONE-HALF  
TO HENRY J. DAVIES, OF SAME PLACE.

## STRIKING MECHANISM FOR CLOCKS.

SPECIFICATION forming part of Letters Patent No. 259,505, dated June 13, 1882.

Application filed January 31, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, WALTER D. DAVIES, of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in the Striking Mechanism of Clocks, of which the following is a specification.

My invention relates to what is known as "lifting mechanism" in the striking mechanism of clocks, and particularly to the means generally called "turn-back," provided for permitting the hands to be turned back past the hours. In ordinary American striking-clocks the count-hook and drop-wire have been carried by a single spindle or arbor, and a second spindle or arbor has frequently been employed for carrying the lift-wire which acts upon the count-hook, the lift-warning, and the lifting-hook, which is acted upon by the lift on the central spindle or arbor, and when provision is made for turning back the hands past the hour it is generally done by a special construction of the hook-lifter on the center spindle.

The object of my invention is to provide a substitute for the aforesaid second spindle or arbor and its wires which shall be cheaper and not so easily bent out of operative shape or position, which will take up less room in the clock, and which may be made to serve as the turn-back without other special construction.

To this end the invention consists in certain novel combinations of parts and details of construction hereinafter particularly described and claimed.

In the accompanying drawings, Figure 1 represents a sectional view of such portions of a clock-movement as are necessary to illustrate my invention, the striking mechanism being at rest. Fig. 2 represents a similar view, showing the striking mechanism during its operation. Fig. 3 represents a plan thereof. Fig. 4 represents a perspective view of the lift-warning, the turn-back, and the hook-lift and appurtenances; and Fig. 5 represents a plan view of the parts shown in Fig. 4.

Similar letters of reference designate corresponding parts in all the figures.

A designates the center spindle or arbor which carries the hands, and a designates the

hook-lifter, which it will be seen is of usual form.

B designates the usual spindle or arbor, which extends between the plates C C of the movement, and which carries the count-hook *b*, the drop-wire *c*, and the lift-wire *d*.

D designates the ordinary count-wheel, which is actuated by the striking-spring and with which the count-hook *b* engages; and E designates the cam with which the drop-wire *c* engages, and which, through said drop-wire and the spindle or arbor B, raises the count-hook *b* from the count-wheel D. The spindle B is surrounded by the ordinary spring, *e*, which impels the count-hook into engagement with the count-wheel and the drop-wire *c* against the cam E.

F designates the hammer, which is actuated for striking by pins on the wheel G in the usual way.

H designates a bell-crank or elbow lever which forms both a turn-back and a lift-warning, and which is pivoted to one of the plates C by a rivet, *f*. This lever is formed of a single piece of metal and may be cut or stamped from sheet metal. It may, if desired, be riveted on a socket and work on a stud fastened to the plate C. One arm, *g*, of the lever H projects into proximity to the hook-lifter *a*, while the other arm, *g'*, forms a lift-warning and projects into proximity with a pin upon the wheel I. The arm *g* is sufficiently flexible to allow it to be bent or deflected laterally, and it is formed with an incline, *g*<sup>2</sup>, as best shown in Figs. 4 and 5. When the lever H is in its normal position the end of the arm *g* bears against the spindle A, as seen in Fig. 1; but when the hook-lifter *a* turns forward it strikes the end of the arm *g* and swings the lever upward, as seen in Fig. 2. When the hook-lifter *a* is turned backward its end bears against the incline *g*<sup>2</sup> and rides over it, deflecting the arm *g* laterally sufficiently to allow it to pass said arm, thus providing for turning back past the hours. When the lever H is swung upward by the hook-lifter *a* its arm *g'* acts upon the lift-wire *d*, and through the spindle B raises the count-hook *b* and drop-wire *c*. At the same time the arm *g'* comes in contact with the pin *s* on the wheel I, and forms a lift-warning to hold

the striking mechanism until the hook-lifter *a* releases the arm *g*, whereupon the lift-warning *g'* releases the wheel I and the clock strikes.

What I claim as my invention, and desire  
5 to secure by Letters Patent, is—

1. The lever H, having the two arms *g g'*, in combination with the hook-lifter *a* for acting upon the arm *g* and the spindle B, provided with arms *b c d*, on the latter of which the  
10 arm *g'* of the said lever H acts, substantially as herein described.

2. The combination, with the wheel I, provided with the pin *s*, and the spindle B, provided

with the arms *b c d*, of the lever H, pivoted to one of the plates of the frame and having the 15 arms *g g'*, the former of which is flexible laterally and the latter of which is adapted to act upon the arm *d* and to engage with the pin *s* to serve as a lift-warning, and the hook-lifter *a* for acting upon the arm *g*, substantially as 20 herein described.

WALTER D. DAVIES.

Witnesses:

JOHN BLACKWOOD,  
W. CHEVEIZER.