

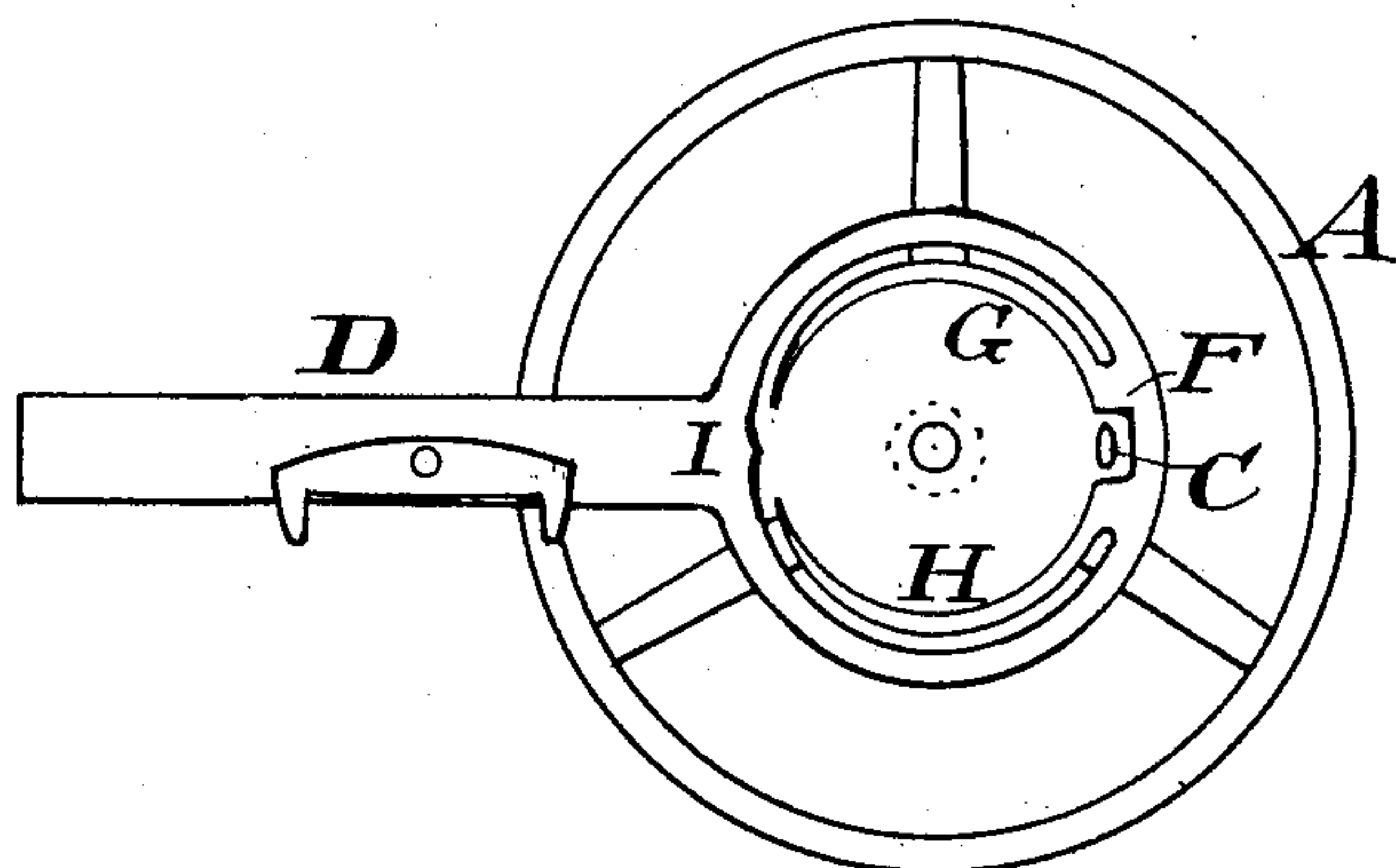
No. 685,905.

Patented Nov. 5, 1901.

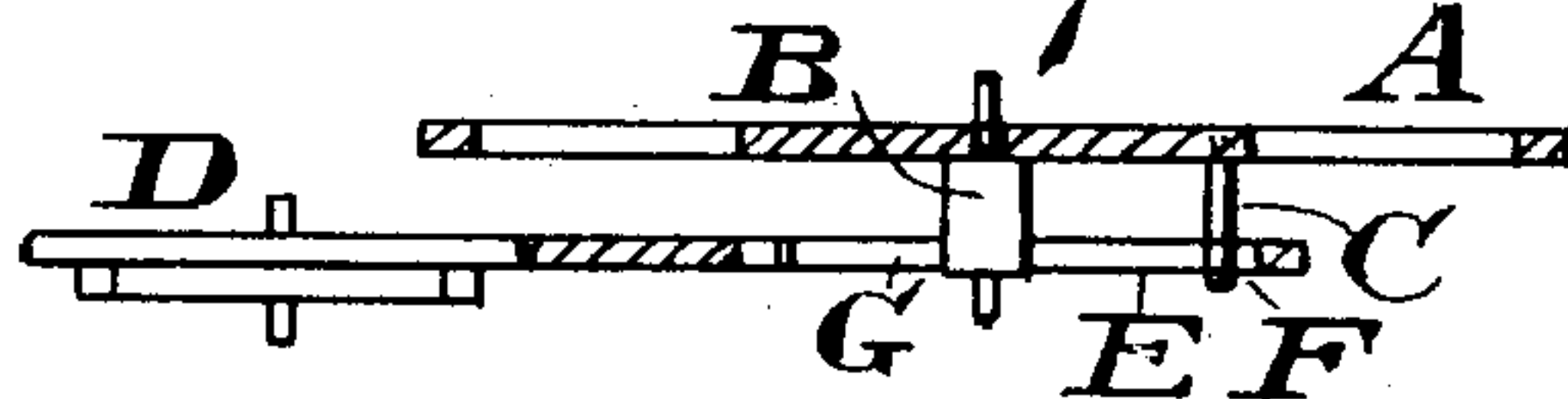
M. BISKIND.  
BALANCE ESCAPEMENT.  
(Application filed Feb. 18, 1901.)

(No Model.)

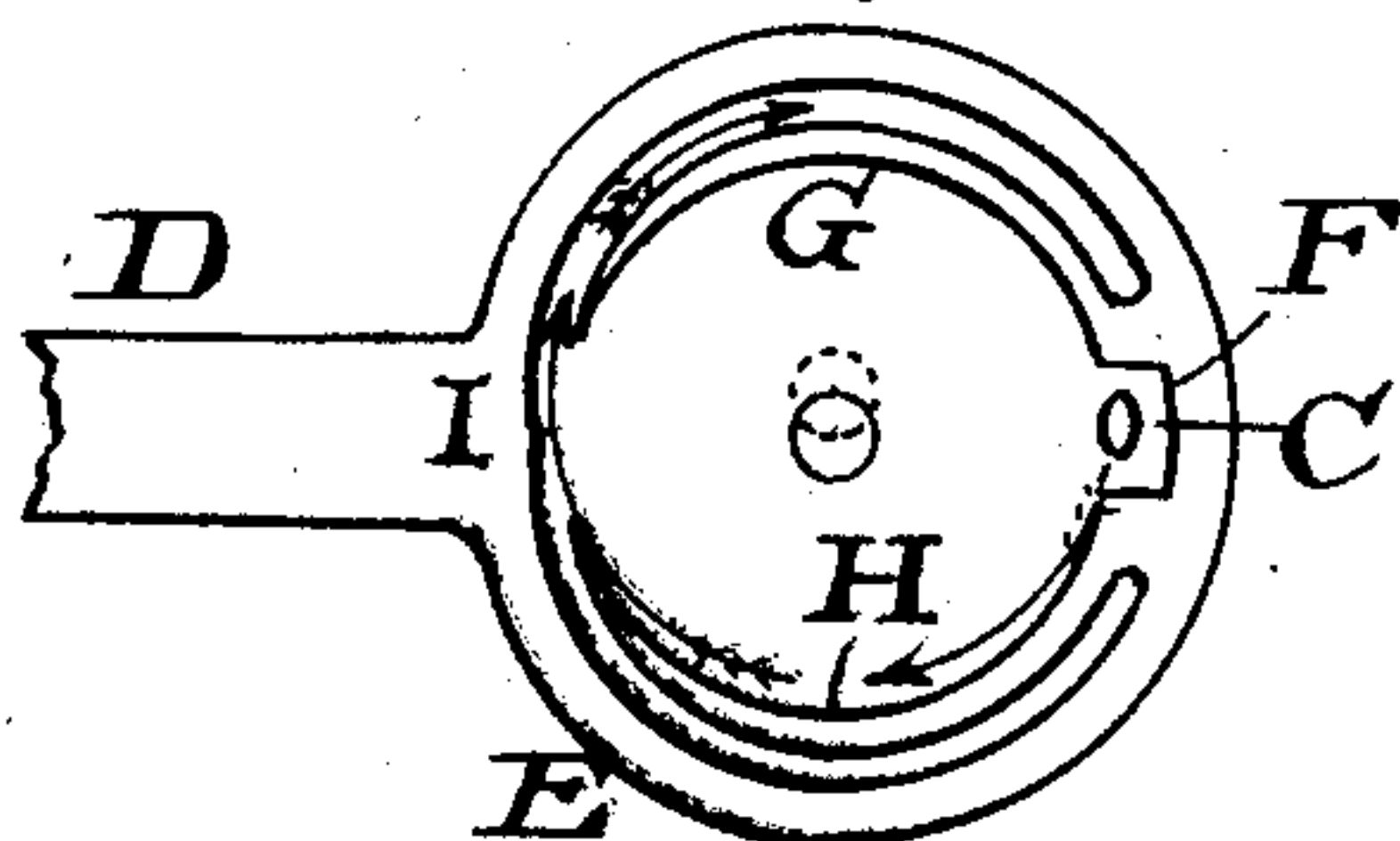
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses:

*Bernice E. Tenney*  
*Jesse A. Tenney*

Inventor:

*Morris Biskind*  
*Geo. W. Tibbitts*  
Attorney.

# UNITED STATES PATENT OFFICE.

MORRIS BISKIND, OF CLEVELAND, OHIO.

## BALANCE-ESCAPEMENT.

SPECIFICATION forming part of Letters Patent No. 685,905, dated November 5, 1901.

Application filed February 18, 1901. Serial No. 47,713. (No model.)

*To all whom it may concern:*

Be it known that I, MORRIS BISKIND, a subject of Emperor Nicholas of Russia, and a resident of Cleveland, Cuyahoga county, State of Ohio, have invented certain new and useful Improvements in Escapements for Watches, of which the following is a specification.

This invention relates to escapements for watches; and it consists in the new constructions and combinations of the escapement-lever with the balance-wheel.

The new construction consists in the lengthening of the lever by forming on its end a ring and providing a notch for the ruby-pin in the ring opposite to the end of the lever and also providing two curved arms within said ring, each extending laterally from the sides of the notch and nearly around to the opposite side, leaving an open space between their ends, for a purpose as hereinafter described.

In the accompanying drawings, Figure 1 is an under side view of the balance-wheel and the improved lever, showing the relation of the ruby-pin with the new lever. Fig. 2 is a side elevation of the same. Fig. 3 is a diagram showing the movements of the ruby-pin in the ring-head of the lever.

A is the balance-wheel.

B is the balance-wheel staff, and C is the ruby-pin, attached to the hub of the balance-wheel by the side of the staff.

D is the lever, on the end of which is provided a ring E, in which is made the notch F for the ruby-pin in the opposite side to the end of the lever.

G H are two curved arms extending from each side of the notch F around and within a short distance from the inner circle of the ring E and terminating at a point opposite the notch F, leaving an open space between their ends. These arms form an open inner ring.

The rotation of the balance-wheel carries the ruby-pin around and it enters the open space at I and passes into the space between arm G and the ring, as shown by the arrows. In its return movement the ruby-pin is rotated back again to and into notch F. Now the movement of the lever gives the impetus to the balance-wheel in the opposite direction, and the ruby-pin will be rotated around and into said open space and be guided into the space between arm H and the ring in like manner to its opposite movement.

In this construction should the hair-spring become broken or detached the balance-wheel would continue to rotate, but the ruby-pin would be guided into the space between the arms G H and be carried around to the stop and then cease to operate.

In this construction the roller-plate is dispensed with, also the banking-pins, thus reducing the number of parts and cheapening the structure, for said lever, with its ring and arms, can be stamped out in one piece ready for use.

Having described my invention, what I claim is—

In a watch-movement, a lever provided with a ring on its end, a notch in said ring opposite to the end of the lever, curved arms extending from said notch and around within the ring and with open termination opposite said notch, and a projecting point in the ring at said terminal opening, in combination with the balance-wheel and the ruby-pin, substantially as described.

Signed by me at Cleveland, Ohio, this 16th day of February, 1901.

MORRIS BISKIND.

Witnesses:

GEO. W. TIBBITTS,  
CHARLES L. STOCKER,