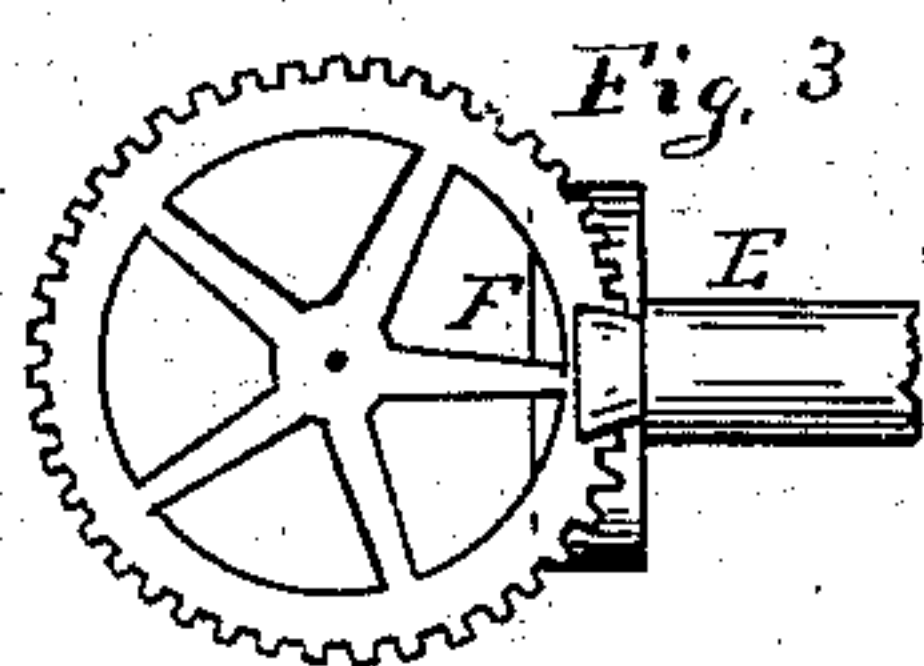
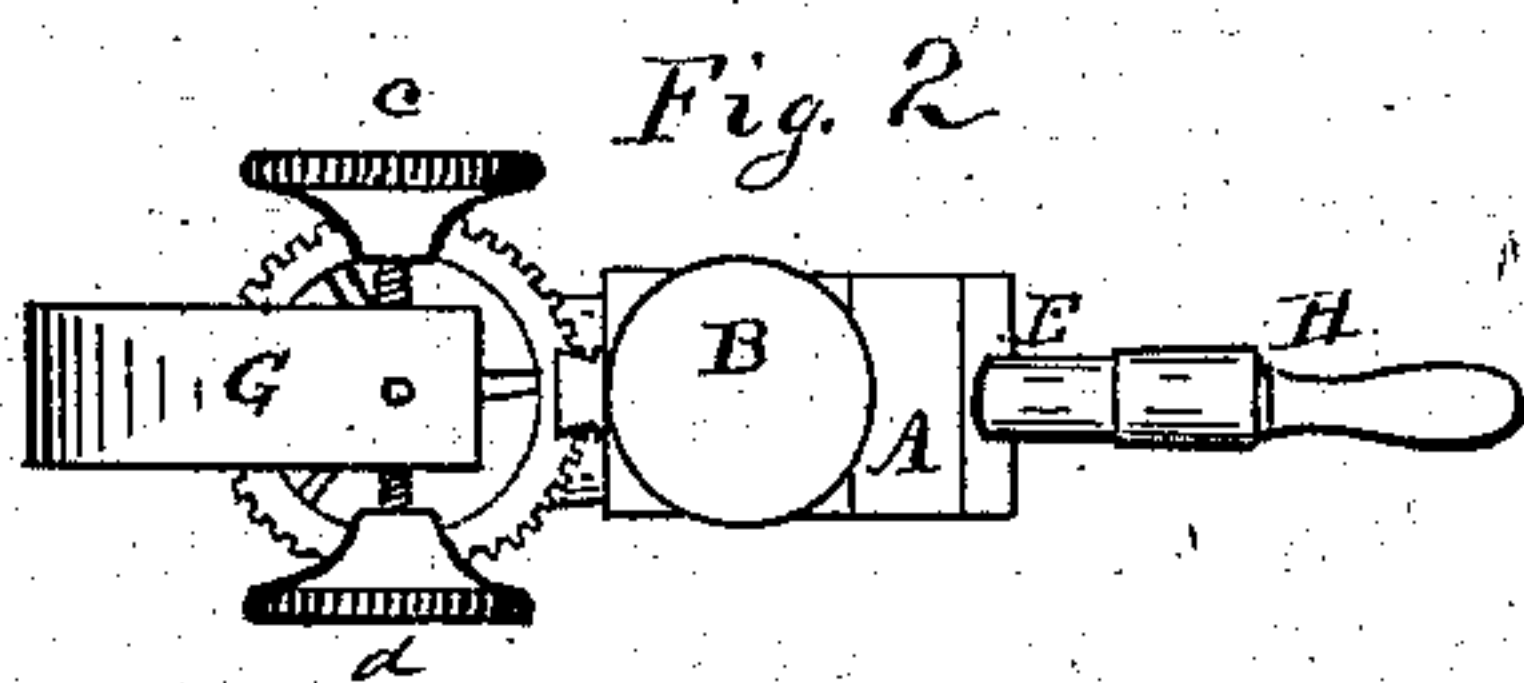
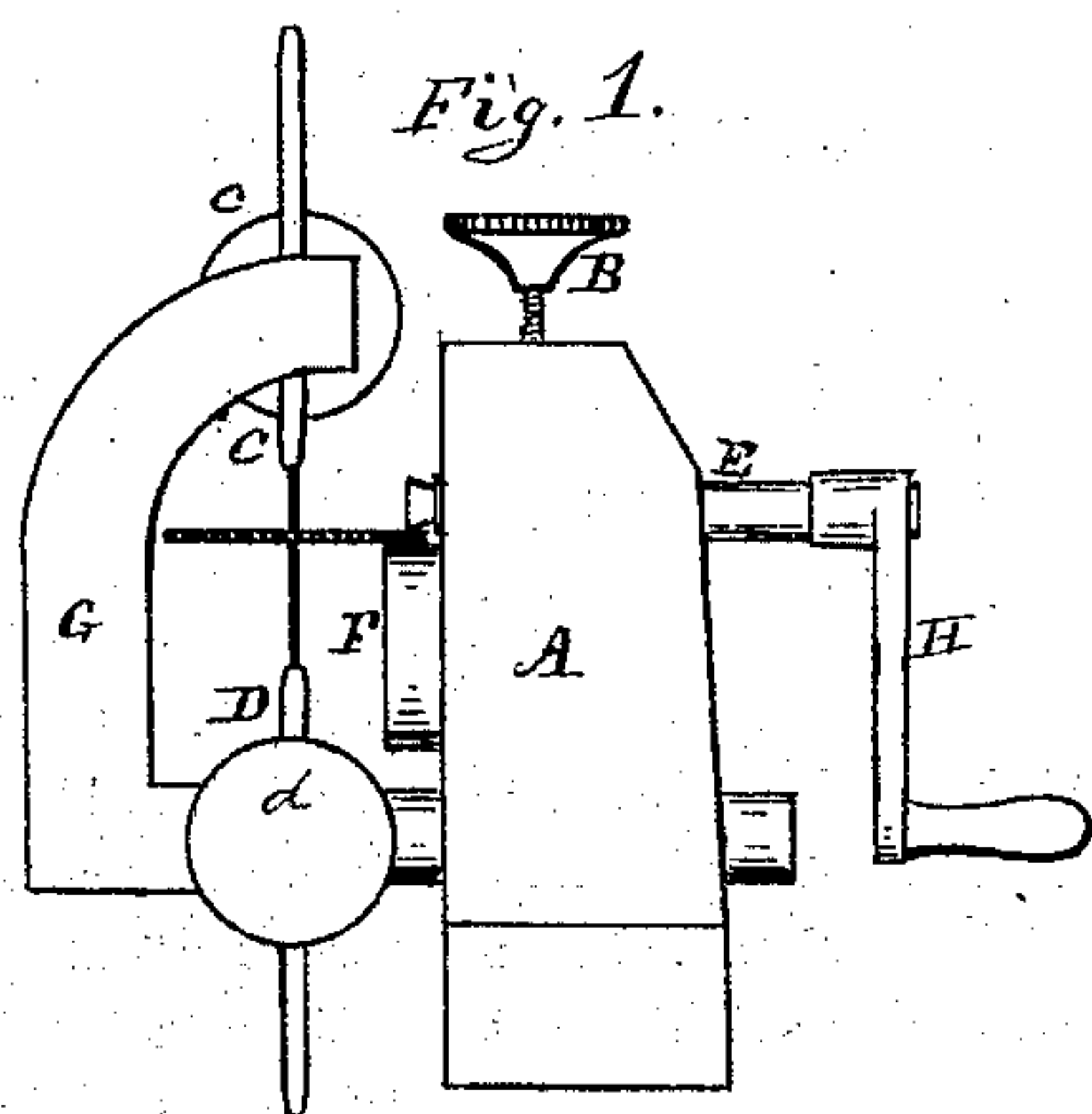


R. COWLES.

Watchmakers' Wheel-Stretchers.

No. 156,207.

Patented Oct. 27, 1874.



Witnesses.

John Pollock  
Silvery Monttley

Inventor.

Royal Cowles  
Per Geo. W. Tibbitts, Atty.

# UNITED STATES PATENT OFFICE.

ROYAL COWLES, OF CLEVELAND, OHIO.

## IMPROVEMENT IN WATCHMAKERS' WHEEL-STRETCHERS.

Specification forming part of Letters Patent No. **156,207**, dated October 27, 1874; application filed February 2, 1874.

*To all whom it may concern:*

Be it known that I, ROYAL COWLES, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a Watchmaker's Wheel-Stretcher, of which the following is a specification:

The object of my invention is to rapidly stretch the rims of watch-wheels by the combination of a tapering head, revolving roller E, and a revolving anvil-wheel F, so arranged in an upright post, A, that the rim of the wheel will lie between them, and when the roller E is turned the wheel is carried between them, having its axis rod arranged in the adjustable bearings D C, so that it may revolve, as seen in the elevation, Figure 1. The device is also further illustrated in top view, Fig. 2, and in enlarged detached view, Fig. 3.

To fully understand the operation of my invention, I proceed to describe it in detail.

A is a post having two holes through it, one near top for a bearing for the roller E, the lower one for the reception of the horizontal arm of the frame G. The post A from this opening down is split perpendicularly from the said opening, the object of which is so that when the post A is set in a vise the split

portion will be closed together, clamping and holding the said arm firmly in place. In the frame G are arranged two spindles, C D, which are held in place by set-screws, *c d*, which also enable them to be adjusted. The said spindles have sockets in their ends for receiving the points of wheel's axle. In the top of the post A is also placed a set-screw, B, for regulating the bearing of the roller E on the rim of the wheel to be stretched. The roller E is provided with a crank and handle H for turning the same.

By this arrangement a watch-wheel having become worn or otherwise reduced may be readily and perfectly stretched to the desired dimensions. The pressure is so applied as to stretch the rim of the wheel just back of the teeth, so that they are not injured.

Having described my invention, I claim—

The post A, roller E, frame G, adjustable bearings C D, and the wheel F, all constructed and arranged to operate as shown, and for the purpose set forth.

ROYAL COWLES.

Witnesses:

GEO. W. TIBBITTS,  
HOMER STRONG.