P. DOHERTY.

COIN-DETECTOR.

No. 192,241. Patented June 19, 1877.

Fig. 1.

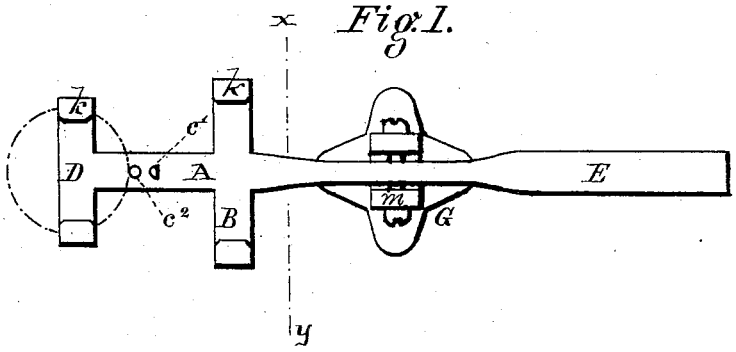


Fig. 2.

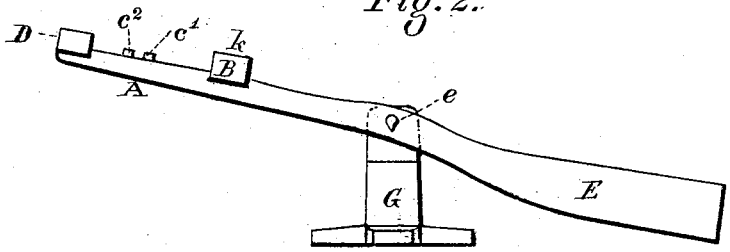


Fig. 4

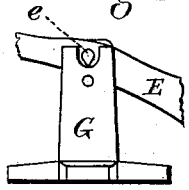
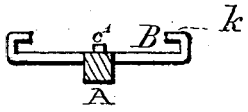


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE

PATRICK DOHERTY, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN COIN-DETECTERS.

Specification forming part of Letters Patent No. **192,241**, dated June 19, 1877; application filed April 2, 1877.

To all whom it may concern:

Be it known that I, PATRICK DOHERTY, of Philadelphia, Pennsylvania, have invented a new and useful Improvement in Counterfeit-Coin Detecter, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a plan of the instrument. Fig. 2 is an elevation, with the cap of the stand removed. Fig. 3 is a cross-section on line *x y* showing the gage. Fig. 4 shows the side of the stand, with the cap *m* removed.

My invention consists in a balance-lever, with gages and adjusting stop attached, for weighing and measuring silver halves and quarter dollars, or gold coin, and detecting the counterfeits.

A represents the gage-arm, and E the weighted or resisting arm made in the form of an elongated weight, with easy curves, to facilitate the forming and polishing of the arm. G is the stand. *m* is the cap covering the pivot *e*.

For the detection of counterfeit half-dollars the gage-arm has secured to it a cross-piece, B, turned up and bent over, as shown in Fig. 3. The vertical portion of this cross-piece gages the diameter of the coin and the turned-over flange *k* gages its thickness. An adjusting stop, c^1, is inserted in the gage-arm at such a distance from the cross-piece, B, as to permit more than half of the coin to be inserted in the gage B. The form of this stop is of such convenience that it provides for an easy mode of accurately adjusting the balance of the instrument. This is done by filing off a small portion of the inside of the stop until the position of the coin is such as to turn the balance.

To detect the counterfeit quarters there is a similar gage, D, at the end of the gage-arm, and a similar stop, c^2. The quarter-dollars enter the gage from the extremity of the arm, and the halves enter their particular gage from the pivot side. The pivot *e* is made of steel, and is knife-edged, as in scale-beams, and is supported by the stand G.

I do not confine myself to the number of gages herein shown, or to the precise manner of forming the lip *k*, as a large-headed screw might readily be used. Gold coin may also be tested in a similar manner.

As the specific gravity of silver is greater than that of any baser metal, a counterfeit must be either larger in size, if of the same weight, or lighter, if of the proper size, than the genuine coin.

When the coin passes through the gage to the stop c^1 more than half the coin is held by the gage which tests the diameter as well as the thickness of the coin, and the lever tests the weight.

It will thus be seen that, with one operation or manipulation of the coin, I can test it in diameter, thickness, and weight, and thus detect a counterfeit.

I claim—

1. In a counterfeit-coin detecter, the combination of the resisting-arm E, the arm A, the gage B for testing the diameter and thickness of the coin, and the adjusting-stop c^1, as herein described.

2. The combination of the arm E, the arm A, a gage for detecting the diameter of the coin, and stop c^1, for adjusting the instrument, as herein described.

3. The combination of the arms E A, the gages B and D, and the adjusting-stops c^1 c^2, as herein described.

PATRICK DOHERTY.

Witnesses:
EDWD. BROWN,
JOHN F. GRANT.