G. M. HOPKINS.

COIN TESTER.

No. 188,637. Patented March 20, 1877.

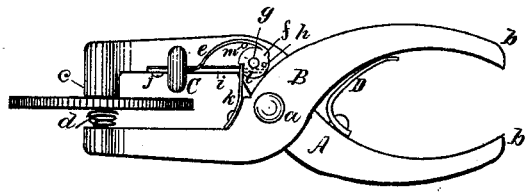

Fig 1.

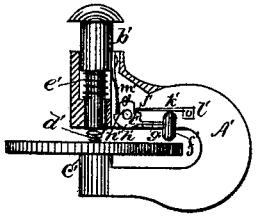

Fig 2.

WITNESSES:

G. M. Hopkins.

C. L. S. Topliff

INVENTOR:

Geo. M. Hopkins.

UNITED STATES PATENT OFFICE.

GEORGE M. HOPKINS, OF BROOKLYN, NEW YORK, ASSIGNOR TO HIMSELF AND CYRUS L. TOPLIFF, OF SAME PLACE.

IMPROVEMENT IN COIN-TESTERS.

Specification forming part of Letters Patent No. **188,637**, dated March 20, 1877; application filed February 12, 1877.

To all whom it may concern;

Be it known that I, GEORGE M. HOPKINS, of Brooklyn, in the county of Kings and State of New York, have invented an Improved Coin-Tester, of which the following is a specification:

My invention consists in the combination of a clamp for holding coin and a spring-actuated hammer for striking the same, the object being to provide a simple, compact, and yet effective instrument for testing coins by ringing them by means of a hammer while they are held by a clamp.

In the drawing, Figure 1 is a side elevation of an instrument employing levers to clamp the coin. Fig. 2 is a side elevation of an instrument in which the coin is clamped by a follower.

A B are crossed levers, pivoted together at *a*, having the arms *b* formed into handles, which are thrown apart by the spring D. Upon the end of the lever A opposite its handle a boss, *c*, is formed, and to the end of the lever B opposite its handle a spiral spring, *d*, is attached. C is a hammer fixed to a spring-arm, *e*, that is attached to a disk, *f*, which is pivoted at *g* to the lever A. A pin, *h*, projects from the back of the disk *f*, and is pressed by a spring, *i*, that is secured in a recess in the lever A by a screw, *j*. A spring, *k*, that projects from the lever B, engages a notch cut in the disk *f* when the handles are forced together, and raises the hammer. The shoulder *l* of the disk *f* throws the spring *k* out of the notch in the disk when the hammer is raised, and the spring *i*, acting on the pin *h*, causes the hammer to descend. The spring-arm of the hammer strikes pin *m*, that projects from the lever A, as the hammer descends, causing it to rebound after striking the coin.

The coin to be tested is clamped between the boss *c* of the lever A and the spring *d*, attached to the lever B, by closing the handles together.

This operation not only clamps the coin, but also partly raises the hammer. The pressure on the handles is increased until the hammer is raised through its full stroke and tripped.

The sound emitted by the coin as it is struck by the hammer indicates its quality.

In Fig. 2 an instrument is shown differing in form from that above described, but acting on the same general principle.

A′ is a yoke or U-shaped frame, which is bored to receive the follower *b′*, and is provided with a boss, *c′*, upon which the coin rests. To the inner end of the follower *b′* a short spiral spring, *d′*, is attached, between which and the boss *c′* the coin is clamped. A spring, *e′*, is placed in the larger part of the bore of the frame A′, and presses the shoulder of the follower *b′*. *f′* is a hammer, fixed to a spring-arm, *g′*, that is attached to a disk, *h′*, which is pivoted at *i′* to the frame A′. A notch, *j′*, is formed in the disk *h′*, which receives a spring, *k′*, that is attached at *l′* to the frame A′. A spring, *m′*, is attached to the follower *b′*, and engages a notch, *n′*, in the disk *h′*. As the follower is pressed downward the disk is turned, and the hammer raised until the shoulder *o′* trips the spring *m′*, permitting the hammer to fall and strike the coin, as in the other case.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination of a clamp for holding coin and a spring-actuated hammer for striking the same, substantially as herein shown and described.

2. The combination of the levers A B, spring *d*, hammer C, and springs *k i*, substantially as herein shown and described.

3. The combination of the U-shaped frame A′, spring-follower *b′*, hammer *f′*, and springs *k′ m′*, substantially as shown and described.

GEORGE M. HOPKINS.

Witnesses:

H. M. HOPKINS,

C. L. TOPLIFF.