

CROSS REFERENCE

SEARCH ROOM

W. L. CUMMINGS & L. W. BLANCHARD.

FRAUD DETECTOR.

APPLICATION FILED NOV. 12, 1915.

1,195,912.

Patented Aug. 22, 1916.

2 SHEETS—SHEET 1.

Fig. 1.

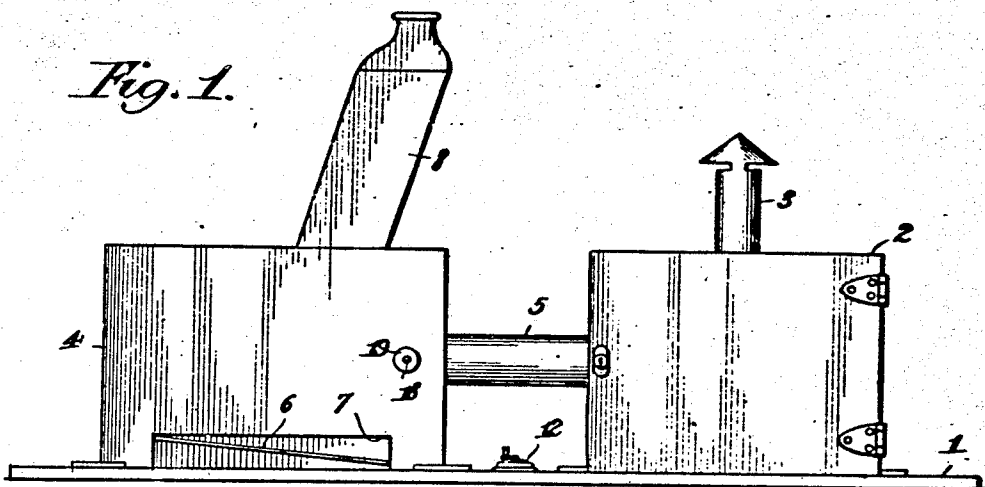
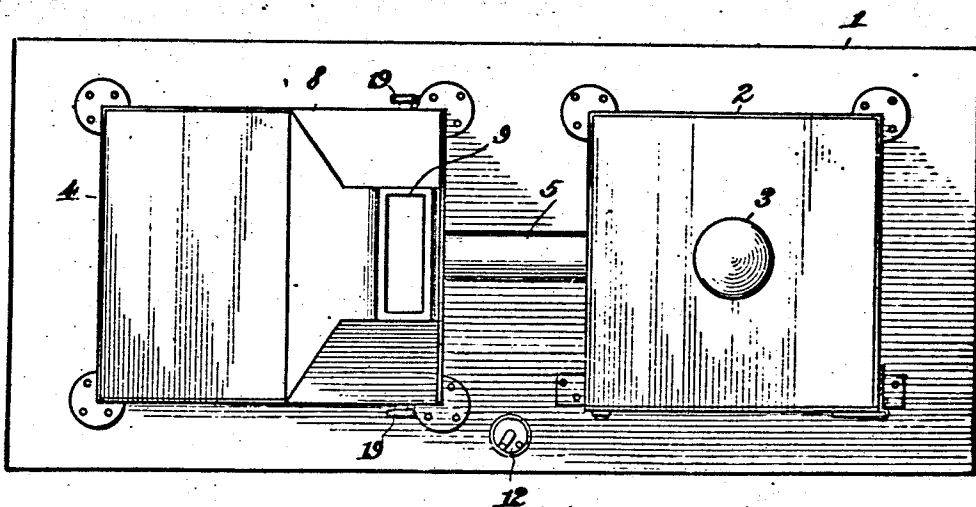


Fig. 2.



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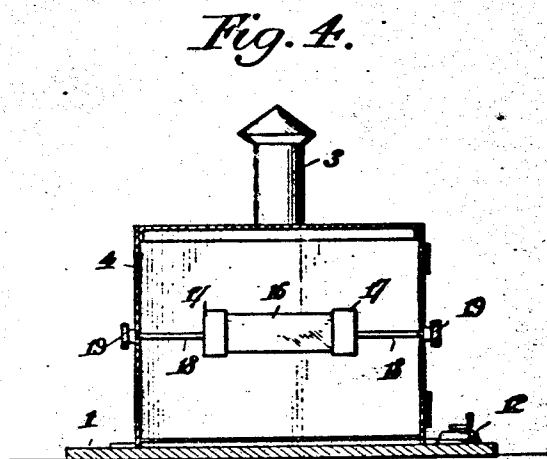
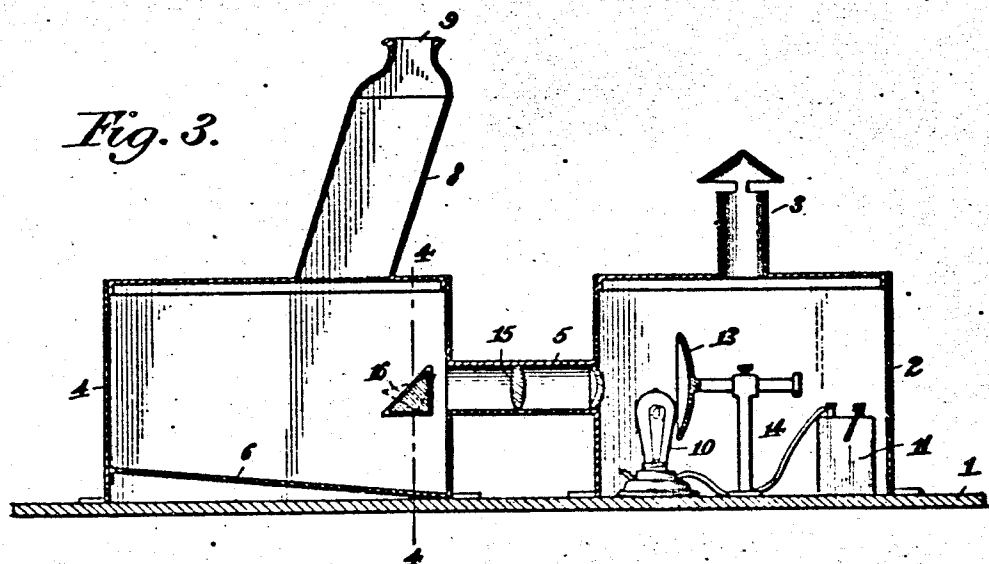
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

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FRAUD-DETECTOR.

1,195,912.

Specification of Letters Patent.

Patented Aug. 22, 1916.

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To all whom it may concern:

Be it known that we, WILLIAM L. CUMMINGS and LAFAYETTE W. BLANCHARD, citizens of the United States, residing at Leavenworth, in the county of Leavenworth and State of Kansas, have invented new and useful Improvements in Fraud-Detectors, of which the following is a specification.

This invention relates to means for detecting fraud corrections in checks, bills, law deeds and similar papers and flaws in precious stones.

Heretofore, it has been the custom to endeavor to locate such fraudulent corrections or flaws by the use of a magnifying glass, but the detection of fraud in such papers or the flaws in valuable gems has not always been found to be successful by this method.

It is, therefore, one of the principal objects of this invention to provide a simply constructed and readily operated device for accurately detecting flaws in gems and fraudulent corrections in negotiable instruments which cannot be detected by the magnifying glass.

Further objects of this invention will appear as the following specific description is read in connection with the accompanying drawings which form a part of this application, and in which:—

Figure 1 is a side elevation. Fig. 2 is a top plan view. Fig. 3 is a longitudinal section on the line 3—3 of Fig. 2. Fig. 4 is a transverse section on the line 4—4 of Fig. 1.

In the specific embodiment of the invention as illustrated herein, I have mounted the mechanism upon a base-board 1 of any suitable type or size, so that the device may be made readily portable as a unit for purposes of convenience. Mounted upon the base-board adjacent one end thereof, is a casing 2, blackened inside to render the walls thereof more opaque and having a ventilator 3 projecting from its top to take off any heat which may accumulate therein from the light to be hereinafter described. A second casing 4 is mounted adjacent the opposite end of the board and is connected to the casing 2 by a tube 5 of opaque material, the casing 4 being preferably blackened inside as is the casing 2. The casing 4 is provided with an inclined floor 6 and with an opening 7 in the side thereof through which the

papers or gems to be examined may be placed upon the floor 6. The top of the casing has projecting therefrom, a fluoroscope 8 having a sight-opening indicated at 9. This fluoroscope embodies the usual platinum cyanid screen not shown herein and is utilized for the inspection of flaws and fraudulent corrections disclosed by the violet rays to be hereinafter described.

Located in the box or casing 2 in position to direct its rays of light through the tube 5, is an incandescent light 10 receiving its source of current from a storage battery 11 located within the casing and in circuit with a switch 12 positioned upon the board 1 at any suitable point. The light rays from the bulb 10 are reflected into the tube 5 by an adjustable reflector 13 mounted upon a supporting post 14. These reflected rays are directed to a lens 15 located in the tube which focuses said rays upon a prism 16 carried in a frame 17 supported upon a rod 18 rotatably mounted in one side of the casing 4 and provided with a knurled head 10 by which the rod may be turned and the prism properly adjusted for the refraction of the rays focused thereon by the lens. The rays emanating from the prism may, therefore, be directed on to the check and as this prism is preferably constructed of quartz, or other similar crystal, the rays directed upon the inclined floor will be of varying colors with the ultra-violet in the ascendancy, owing to the fact that quartz and similar crystal bodies are highly transparent to the short wave-length vibrations of the ultra-violet rays. These rays being directed upon the negotiable paper or gem will expose any defect or fraudulent correction which may be seen upon the screen of the fluoroscope.

When utilized for detecting fraudulent corrections in bank checks and the like, the device may be placed in a convenient and out-of-the-way position so that the checks may be inserted and inspected without arousing the suspicion of the person presenting them, while when used for inspecting gems or similar articles, it may be placed in any convenient position.

What is claimed is:—

An instantaneous fraud detector of the character and for the purpose described comprising, in combination, suitable means

for supporting the object to be tested, a quartz prism, means for supplying and projecting ultra-violet rays against said prism so as to be directed thereby against said object, and a fluoroscope arranged to render such light rays visible to the eye of an observer to indicate any possible imperfections in the object under test.

In testimony whereof we affix our signatures in presence of two witnesses.

WILLIAM L. CUMMINGS.
LAFAYETTE W. BLANCHARD.

Witnesses:

GEO. W. BRIGHT,
P. E. WOOD.