F. & A. D. GRAFELMANN.

APPARATUS FOR TESTING BANK-CHECKS, &c.

No. 194,347. Patented Aug. 21, 1877.

Fig. 1

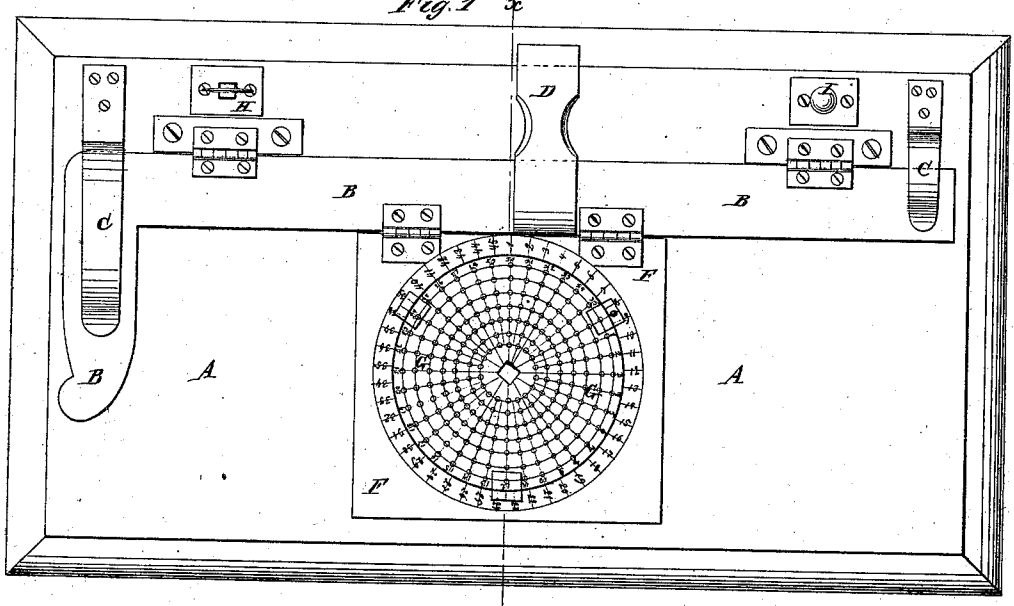


Fig. 2

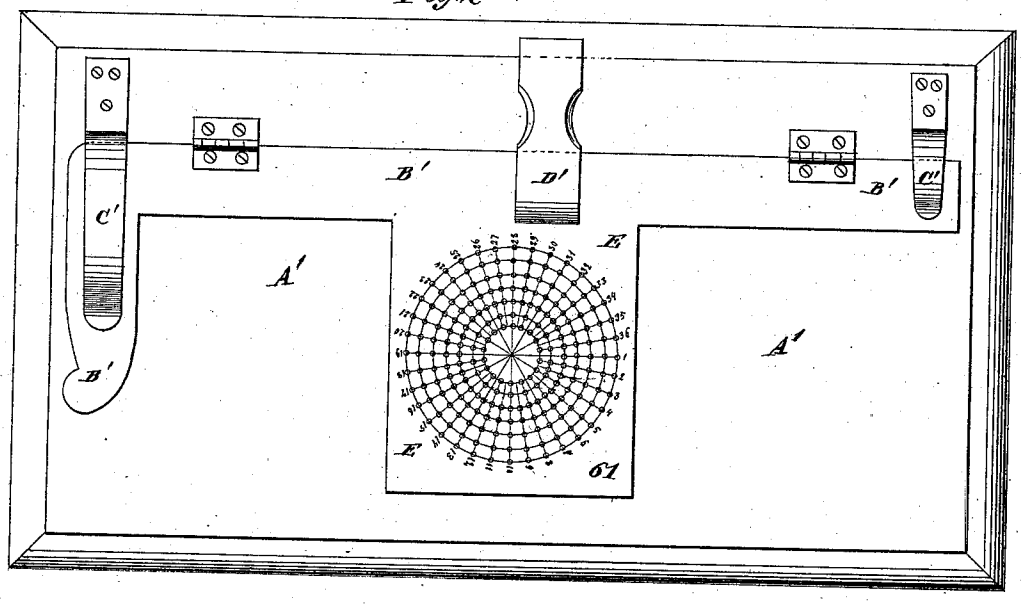
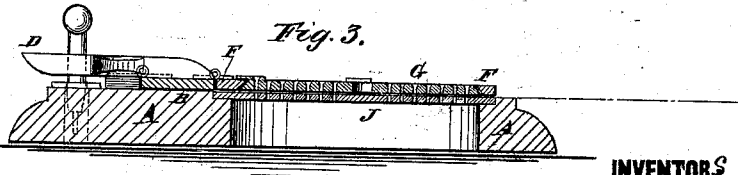


Fig. 3.



WITNESSES:

A. W. Almqvist

J. H. Scarborough

Fig. 4

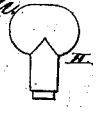


Fig. 5



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UNITED STATES PATENT OFFICE.

FREDERICK GRAFELMANN, OF MIDDLE VILLAGE, (MASPETH P. O.,) AND ADOLPH D. GRAFELMANN, OF NEW YORK, N. Y.

IMPROVEMENT IN APPARATUS FOR TESTING BANK-CHECKS, &c.

Specification forming part of Letters Patent No. **194,347**, dated August 21, 1877; application filed June 30, 1877.

To all whom it may concern:

Be it known that we, FREDERICK GRAFELMANN, of Middle Village, (Maspeth P. O.,) in the county of Queens and State of New York, and ADOLPH D. GRAFELMANN, of the city, county, and State of New York, have invented a new and useful Improvement in Check-Tester, of which the following is a specification:

Figure 1 is a top view of one part of our improved device. Fig. 2 is a top view of the other part of the device. Fig. 3 is a detail cross-section, taken through the line *x x*, Fig. 1. Fig. 4 is a detail view of the key for adjusting the rotating disk. Fig. 5 is a detail view of the pin for making the punctures.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an apparatus for the use of depositors and banks to enable raised and forged checks to be detected.

The invention consists in the combination of the plate, the hinged right-angled bar, the springs, the lever, and the plate provided with the concentric circles of holes arranged upon radial lines, and with the series of combination numbers, to adapt it for use by a depositor for marking his checks, and in the combination of the plate, the hinged right-angled bar, the springs, the lever, the plate provided with the circular hole, and the series of index numbers, and the rotating circular disk provided with the circles of holes, arranged upon radial lines, and the series of combination numbers, to adapt it for use by a bank for testing a marked check, as hereinafter fully described.

The apparatus is made in two parts, one of which is designed to be in the hands of the depositor, and the other in the hands of the bank. The part that is in the hands of the bank is so constructed that it may be used in connection with any required number of the other parts in the hands of depositors.

A A′ are the foundation or base plates of the two parts, to which, near their rear edges, are hinged the edges of the right-angled bars B B′, which are held down by springs C C′ attached to the plates A A′, and the free ends of which rest upon the said bars B B′. The right-angled bars B B′ are turned upon their hinges, to allow the checks to be inserted and removed, by short levers D D′. As thus far described the two parts are exactly alike.

We will first describe the peculiarities of the depositor's part of the apparatus, and then those of the bank's part.

Upon the middle part of the forward edge of the long arm of the right-angled bar B′ is formed, to it is rigidly attached, or to it is hinged, a plate, E, upon which are formed seven concentric circular lines. These circular lines are divided into equal spaces by thirty-six radial lines, and in the points where the radial and circular lines cross each other are formed holes, except the two inner circles, which are too small to receive so many holes, and in which the holes are formed at every other radial line. The radial lines are all numbered at their outer ends, which numbers are called by us combination numbers. Each depositor may select one of these numbers as his combination, or he may have a varying combination number, as, for instance, the day of the month upon which his check is dated.

To the middle part of the right-angled bar B of the bank's part of the apparatus is hinged or attached, or upon it is formed a plate, F, in such a position that the center of the circular hole formed in it may have the same relative position as the center of the plate E of the other part of the apparatus. In the hole of the plate E is placed a circular disk, G, which is provided with circular and radial lines, holes, and numbers, in exactly the same way and in exactly the same relative positions as the plate E, so that if placed upon each other they would correspond exactly. The edge of the disk G is beveled to fit against the beveled inner edge of the plate F, and is kept in place by lugs attached to it, and which overlap the upper side of the said plate F.

Upon the plate F, around the hole through it, are formed a series of numbers, called by us "index numbers," to correspond with the numbers placed upon or given to the parts of the machine in the hands of the depositors.

Upon the plate E in the drawings is seen the number 61. This gives 11 as the index number of that machine, 50 being taken as the basis or starting-point.

In the center of the disk G is formed a

square hole to receive a key, H, for turning it, which key, when not in use, may be kept in a socket in the plate A.

The punctures are made by a pin, I, which, when not in use, may be kept in sockets in the plates A A′.

In the plates A A′, directly beneath the plates E F, or in plates J, secured over holes in said plates A A′, are formed holes corresponding in number and position with the holes in the plate E and disk G, for the pins I to pass through when making the punctures.

The checks should be prepared with a margin or border line along their tops and left-hand ends, or should be cut to make their upper left-hand corner a right angle.

To illustrate, we will suppose a depositor's index number is 11, his combination number is 22, and the amount of his check $1,225. After filling out his check he places it upon the plate A′ beneath the plate E, taking care to bring the angle of its margin lines or its square corner exactly into the angle of the bar B′. He then adds the units five to his combination number 22, and presses the pin I through the hole in the outside circular line opposite the number 27. He then adds the tens, two, to his combination number 22, and presses the pin I through the hole in the second circular line opposite the number 24, and so on, the hundreds being marked through the holes of the third circular line, the thousands through the fourth line, and so on to the tens of thousands. The hundreds of thousands and the millions are marked in the two inner circular lines.

In case the holes in the two inner lines are in the odd radial lines and the number to be marked is an even number, the mark is made through the hole of the next odd line.

When the check is received at the bank the index and combination numbers of the depositor are noted, a record of which may be kept in the signature-book. The disk G is then adjusted to bring the zero of the said disk opposite the depositor's index number upon the plate F, and the pin I is then used in the same manner as it was used by the depositor. The check is then removed from the instrument, and if no new punctures have been made the check is correct; but if one or more new holes have been formed, it indicates that the check has been raised or forged.

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

1. The combination of the plate A′, the hinged right-angled bar B′, the springs C′, the lever D′, and the plate E, provided with the concentric circles of holes arranged upon radial lines, and with the series of combination numbers to adapt it for use by a depositor for marking his checks, substantially as herein shown and described.

2. The combination of the plate A, the hinged right-angled bar B, the spring C, the lever D, the plate F, provided with the circular hole, and the series of index numbers, and the rotating circular disk G, provided with the circles of holes arranged upon radial lines, and the series of combination numbers to adapt it for use by a bank for testing a marked check, substantially as herein shown and described.

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