

HEATH'S

INFALLIBLE

P. M. B. CO.

JULY 18 1897

COUNTERFEIT

DETECTOR

AT SIGHT

By Authority

FROM THE

UNITED STATES TREASURY DEPARTMENT.

Banking & Counting House Edition



HEATH, LABAN

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Engraved & Printed at the Treasury Department

HEATH'S
GREATLY IMPROVED AND ENLARGED
INFALLIBLE
Government Counterfeit Detector,
AT SIGHT.

THE ONLY INFALLIBLE METHOD OF DETECTING COUNTERFEIT, SPURIOUS,
AND ALTERED BANK NOTES, GOVERNMENT BONDS, ETC.

APPLICABLE TO ALL BANKS IN THE

UNITED STATES AND CANADAS,

AS NOW IN CIRCULATION OR THAT MAY BE ISSUED,

WITH

GENUINE DESIGNS FROM THE ORIGINAL GOVERNMENT PLATES.

BY AUTHORITY FROM THE UNITED STATES TREASURY DEPARTMENT, AND THE
AMERICAN, NATIONAL, AND CONTINENTAL BANK NOTE COS.,
NEW YORK AND BOSTON.

Banking House and Counting Room Edition.

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INTRODUCTION.

In presenting a fourth revised edition of the "Counterfeit Detector" to the public, I wish to add a few remarks enabling the reader more fully to understand its import. Having had unlimited experience in the detection of counterfeit and altered bank notes, I felt the necessity of placing this knowledge within the reach of all; and during the *regime* of the old State Banking System I issued my first work, which met with such favor from the public, that it reached the enormous sale of twenty-five thousand copies, and would have exceeded this number had not the whole currency of the country been changed to treasury notes, known as "greenbacks," or legal-tenders, and national bank-bills. This change gave apparent security for a time; but hopes of safety were suddenly dispelled by the appearance in our midst of counterfeit treasury notes, so nicely executed that they were received by our leading banks as *genuine* notes. This, together with the numerous and dangerous counterfeits of the new national currency, induced the author to apply to the Secretary of the United States Treasury for certain cuts and dies used on the legal-tenders and other national bills. The officers of the leading Bank Note Engraving Companies were consulted upon the subject, and after a thorough investigation permission was granted on condition that the dies should be so mutilated as to

prevent all possibility of counterfeiters making any use of them in their nefarious business, and yet preserving the symmetry of the work.

I was, therefore, through the kindness of the Secretary of the Treasury, enabled to give fac-simile cuts and dies from nearly all the government issues, thus placing in the hands of all, the means of detecting the most skilfully prepared counterfeits that can be executed.

I then issued my first edition of the Government work, known as the "Pocket Edition" of "Heath's Infallible Counterfeit Detector at Sight." The object was to furnish the public with a *standard* guide, and, in a comprehensive form, the means of detecting counterfeit bank-notes at sight,—the same means employed by engravers, brokers, cashiers, and other experts. This knowledge has been reduced to fixed principles, so clear and simple, that any one, with the aid of a microscopic glass, can understand and apply them. And all who have become acquainted with the author's mode of teaching the art have shown the deepest interest in it, and a desire to know still more. Finding the public so well pleased with the Pocket Edition, and desirous of obtaining all the information that could be furnished, with the facilities at my command I issued the "Banking and Counting House Edition," containing about fifty of the most beautiful Government devices, including "vignettes," "dies," etc. The labor and expense of getting up the work was very great. Neither time nor money was spared in perfecting it, so that I could present to the public a *standard* work, not only worthy of the title it bears, but a sure safeguard against all classes of counterfeits.

The general principle upon which the detection of counterfeits is based, is, that *all parts of genuine notes are engraved*

by machinery,— with some exceptions hereafter named, — while *all parts of counterfeit notes are engraved by hand*, with exceptions hereafter given.

The machines employed in engraving are very elaborate and expensive, thus placing them beyond the reach of counterfeiters, who, even if they had the capital, would hardly risk investing from \$75,000 to \$150,000 in an illegitimate business which might be taken from them at any moment by the officers of the law. The size and weight of such apparatus would also prevent concealment.

The work executed by the Government and Bank Note Company is of great beauty and perfection, and in all parts mathematically and geometrically exact. Engraving executed by hand, or even with the aid of some simple machinery, can never approach the beauty and exactness of genuine work. The success of counterfeiters in circulating their spurious issues is not always due to any excellence of work that would deceive a practised eye, but to the *general ignorance of the public as to what constitutes good and poor engraving*. So general is this ignorance, that it is rare to meet a man who knows the object or character of the beautiful devices found upon every bank-note, and which are its only safeguard against counterfeiting. In judging of the genuineness of a note, some look carefully for pin-holes; others, for signs of wear; and others still, examine the paper, all of which are easily imitated by counterfeiters.

The work having been kindly received and appreciated by the public, and desiring to show my gratitude, I undertook a thorough revision, being desirous to furnish the most perfect work of the kind ever produced, and do not hesitate to pronounce it an *infallible* guide. In the engravings of this work

will be found a *standard of excellence*, with which all genuine work will favorably compare, while counterfeits will fail to stand the test. A careful comparison will reveal their defects, defects which will never be found in genuine work. Some works of similar character to this have attempted to give specimens of counterfeit engraving by means of wood-cuts. This, however, is impossible, as wood-cuts are no guide by which to judge of steel engravings; besides, there is no standard for counterfeits, varying as they do from poor to excellent. The genuine only is the standard, and it is the genuine which should be fully learned. The counterfeit will then be known at sight.

In conclusion, I cannot refrain from expressing my gratitude to the Secretary of the Treasury; Hon. Wm. E. Chandler, late Assistant Secretary; Gen. F. E. Spinner, U. S. Treasurer, whose bold, inimitable signature is better known than that of any American now living; to George B. McCartee, Esq., Supt. Printing Bureau; and Col. Whitely, Chief of the Secret Service Division, as well as to the officers of the American, National, and Continental Bank Note Companies, and many others, whose suggestions have been of great value to the author.

LABAN HEATH.

COUNTERFEIT DETECTOR.

GEOMETRICAL LATHE WORK.

CANNOT BE SUCCESSFULLY IMITATED.

ALL the figures on bank-notes, of circles, ovals, squares, etc., and upon which the denomination is usually placed (see Plates 2, 3, 5, and 6), are composed entirely of a *network of fine lines*, crossing each other at such angles and distances as to produce the desired effect. This *fine line* is the characteristic of this description of engraving, and in genuine work can be traced by means of a lens throughout the figure, never breaking or losing itself in another line, or pursuing any irregularity whatever. This line is usually white, on a black or green ground, or sometimes red, but may be a black, green, or red line on white.

Plate 5 shows the beautiful lathe work, on the right end of the backs of the \$ 10, \$ 20, \$ 50, and \$ 100 National Currency Notes; they are printed in green, the same color used for the bills. A careful comparison of any suspicious note of the above denomination (with the aid of a lens) will at once determine its character. This line is produced by the Geometrical Lathe, a wonderful and beautiful engine, invented

by Mr. Asa Spenceer, of Connecticut, and first introduced into general use in 1818-19. The patterns produced by the geometrical lathe are of every conceivable variety of form and figure; but this *fine line* is the characteristic of them all. The lathe does not engrave its patterns directly upon the bank-note plate, but upon pieces of soft steel one eighth of an inch thick. This piece is then hardened by a peculiar process, and then a cylinder of soft steel is rolled over it by means of a powerful machine called the Transfer Press, and the engraving is transferred to the cylinder. This cylinder is then hardened, and is capable of transferring the same design to the bank-note plate, by means of the Transfer Press. *In counterfeit engraving, on the contrary, the design is engraved directly upon the plate, and will fail in two ways.* First, it will be impossible to produce the *perfect line* of the genuine, and the effect to the naked eye will be a more or less dull and sunken appearance, and sometimes a "scratchy" look. The figure will also be darker or lighter in spots, because the lines will be sometimes heavier and sometimes lighter. The lens will also show the lines to be imperfect, sometimes broken, irregular in size, and irregular in their course; and, second, it will be impossible to produce two dies exactly alike. In the genuine plate, when two dies occur alike, both are "transferred" for the same cylinder and *must* be alike; but in the counterfeit, each being separately engraved, and by hand, it is *impossible* to produce two exactly alike. An examination of the plates showing the more frequent form of geometrical lathe dies will show the beautiful, clear, raised impression produced by the correct lines of the genuine engraving. Sometimes the

whole face of a note, except the vignettes and dies, will be *tinted* a pale red or other color. This tint is composed of fine curved or looped lines, running across the whole face of the bill, and is done by the geometrical lathe. In the genuine it will be perfect in the lines and in the shades, like all lathe work, as described above; and the counterfeits will have the same imperfections, in the lines and in the shades, before described. In all the Government issues (with the exception of the old fractional currency, now nearly obsolete) the geometric lathe work is largely used, constituting the chief test of genuineness. *This should be made a particular study* by carefully examining the plates, both with the lens and the naked eye. In examining lathe work for proof of genuineness, begin at the centre of the curvilinear figures, and then gradually follow the lines around the circles, one within the other, for the discovery of special defects which would otherwise be overlooked. Also be careful and minute in comparing general designs.

RULING ENGINE WORK.



THE *fine line* is also the characteristic of this kind of work; but the lines, instead of forming circles, are *parallel*. This work is always used for the *shading of letters* (see Plate 11), which forms a perfectly even pale gray shade. The lines are usually very fine in genuine work, so that the shading appears light. It may, however, be dark and yet be genuine.

The engraving is produced and transferred in the same way as the geometrical lathe work, and the shade will always be uniform, — no part darker than another, — the lines will all be perfect, and the spaces between them exact. They may be horizontal, i. e., directly across the plate, or diagonal, running crosswise the plate. In the counterfeit, this work, like all other, is engraved upon the plate by hand, aided sometimes, perhaps, by some simple and imperfect machinery.

Consisting of the fine line, like the geometrical lathe work, it will fail in the same particulars; namely, will be more or less dull and sunken, looking as though done with a lead-pencil, and may also have the “scratchy” appearance. The lens will show the lines to be more or less coarse and uneven, frequently breaking, and sometimes ending too soon.

The lines are also liable to be crooked,—not perfectly parallel. Fine specimens of ruling engine work will be found on Plate 11. It is generally used, as there, for the shading of names of banks, and also for the names of Town, State, etc.

The shading of letters, and all parallel ruling upon Government and bank notes, is executed by the Parallel Ruling Machine. This machine is governed by an index which regulates the width of the lines. On all genuine notes the work is fine and clear, and the lines are strictly parallel. It is executed with such mathematical accuracy, that by the aid of the microscope the lines are seen to be perfect, and, however minute, can be easily counted. Clear skies are also usually formed of fine parallel lines. When cloudy or heavy skies are required, these lines are made to cross each other. Sometimes sky is formed of several broken etched lines. Parallel ruling is a very important branch of engraving, and one which cannot be too attentively studied.

VIGNETTES.



CAN BE IMITATED.

THE two kinds of work previously described are always and invariably *machine work* in genuine bills, and therefore *cannot* be imitated successfully by the means in the hands of counterfeiters. Vignettes may be classed as the *artistic* part of bank-note engraving, as the greater part of it is done by hand, and in all genuine work by first-class artists. Water and sky are sometimes done with the ruling engine, and when they are, come under Ruling Work, and cannot be successfully imitated. The only thing required for a first-class vignette is a first-class artist; but as such artists receive high rates of compensation, and can usually find plenty of employment from the regular companies, counterfeiters can offer little temptation to induce them to work for them, and there is also little temptation for artists to become counterfeiters. It is therefore *rare* to see fine vignettes on counterfeit notes. That good work is *sometimes* found upon such issues is, however, not to be denied; and some works of a similar character to this have taught people to rely too much upon the character of the vignettes. Much is said about the appearance of the eyes, hair, skin, drapery, fingers, toes, etc., leading people to suppose

these are infallible "guides." The Plates 6 and 8 give fine specimens of first-class vignettes, which will be readily recognized by the reader as belonging on the different denominations of national bills, and all vignettes which fail to compare well with these should cause the note to be carefully examined; but the style of vignette should not be allowed to overturn judgment based upon the work described in the first two sections. If that be all genuine, an ordinary vignette cannot make the bill counterfeit, and if that be counterfeit, no vignette can make the bill genuine. The vignettes on the backs of the \$5, \$10, \$20, \$50, \$100, \$500, and \$1,000 National Currency Notes are taken from historical paintings from the U. S. Capitol at Washington, which are exceedingly lifelike and beautiful. The engraving on the back of the \$5 is the landing of Columbus; on the back of the \$10 is De Soto discovering the Mississippi; on the back of the \$20, the baptism of Pocahontas; on the back of the \$50, the embarkation of the Pilgrims; on the back of the \$100, the signing of the Declaration of Independence; on the back of the \$500, the surrender of Gen. Burgoyne; on that of the \$1,000, Washington resigning his commission. Being under the necessity of mutilating all the dies furnished by the U. S. Treasury Department, as referred to in the Introduction, I have taken the right end of back vignette of \$5 National Currency, and the right end of face of \$5 National Currency, and the left end of the back of \$10 and the right end of the \$20; also, the left end of the \$50 and the right end of the \$100, and the right end of the \$500 and the left end of the \$1,000,

and put them together, to preserve their symmetry, instead of mutilating the entire back. (See Plates 7, 9, and 10.)

On the centre of Plate 4 will be seen the vignette which appears on the left end of the \$5 greenback. At the right of it is the vignette of the \$20 greenback; at the left is vignette on right end of \$10 greenback. The portraits in Plates 2 and 3 were executed by men at the head of their profession, and are exceedingly lifelike and beautiful. Counterfeiters oftener fail in portraits than in out-door scenes, giving them generally a sunken and lifeless expression. The vignettes upon the Government issues consist of out-door scenes, historical pictures, portraits, and allegorical figures. All are of exceeding beauty, and it is not probable that counterfeiters will ever succeed in successfully imitating such work. Specimens of all are given,—the splendid portraits of Chase and Hamilton, on Plate 2, executed by the National Bank Note Co., of New York, cannot fail to strike the eye of the most casual observer. Yet the portrait of Hamilton has been dangerously imitated on a counterfeit \$50 greenback. But it should be understood that, however perfect, a counterfeit cannot be the same as the original. This portrait of Hamilton, for instance, has been engraved but once, and all impressions of it upon Government notes, or in this book, are exact copies of that one engraving, being all made from it by the transferring process already described. The same is true of all vignettes upon Government issues. The figures and likenesses which form the principal characteristics in vignettes are drawn in accordance with a certain ideal standard of perfection. Female figures are generally represented with the arms,

neck, and feet bare; and their accuracy of proportion, and the delicacy of the work, are important guides in determining the genuineness of the plates. The texture of the skin is represented by fine dots and lines, an admixture of styles of engravings which is to be found in all vignettes, and the fineness and regularity of these dots and lines indicate the quality and reliability of the work. In the human figure, upon genuine plates, the eye, mouth, hair, and attitude are perfectly natural, and the features are always sharp and striking. In counterfeits, the features are usually blurred and expressionless, the eye is dull, the arms, feet, and hair imperfect, and the dots and lines which form the face and the exposed portions of the person are large, coarse and uneven. A careful study of vignettes is recommended to all who desire to become expert in the art of detecting counterfeits. A comparison, therefore, of a supposed counterfeit with the specimens in this book will show whether it be exactly the same or not.

SOLID PRINT.



CAN BE IMITATED.

IN genuine work the lettering is done by a first-class artist, who makes it his exclusive employment, and therefore arrives at a high degree of perfection. The name of the engraving company is always engraved upon the genuine with great care and accuracy. It will be found on the upper or lower margin of the bill. In counterfeits, it is more or less irregular and uneven. The chief use of solid print is to prevent alterations, as will be hereafter explained. It is classed as capable of imitation, because a good artist can engrave it for counterfeiters, if so disposed, as well as for the regular engraving companies. A specimen of solid print will be seen on the one dollar greenbacks, with the words "one dollar" engraved thereon. Much has been said in some "Detectors" about the lettering of "Promise to pay," etc., as being nearly infallible. The truth is, however, that this is of little value, being frequently very neatly done in counterfeit notes. A portion of the new treasury notes have the denomination, etc., in very fine letters across a portion of the face of the bill,—two dollars, two dollars, U. S., U. S., United States Legal Tender Note, United States Legal Tender Note, etc., one, one, etc., and ten, ten, etc. This, in the genuine, produces a perfectly even shade of black, green, red, or otherwise, according to the color of ink used; but in the counterfeit cannot be so well produced; and therefore, the shade will be lighter in some places, and darker in others.

PROCESS OF ENGRAVING BANK NOTES.



When an engraver takes in hand a subject, either a vignette or portrait, he has it reduced by the camera to the proper size he wishes to engrave it; he then makes a tracing of the same by placing over the reduction or drawing a piece of gelatine; he then traces an outline of the subject with a fine etching tool, slightly scratching the gelatine. After the tracing is complete, he fills the lines of the same with red chalk, and then selects a piece of properly-prepared steel, of the required size and thickness, and lays upon the polished surface an etching ground, composed of asphaltum, burgundy-pitch, and beeswax, which is applied by rubbing and dabbing over the heated die until it lays smooth over the surface of the steel. He then smokes the same over a jet of gas, or a wax taper, until the surface is quite black. After the die cools it is ready for receiving the tracing, which is placed upon the die reversed, and submitted to the pressure of the roller-press. The gelatine is then removed, and the outline, as traced in red, will be observed on the ground. The engraver then proceeds with his etching needle or point, and etches the water or landscape, outlining the figures, etc.; this is done by scratching the surface of the steel through the composition or ground. After the etching is completed a border

of beeswax and pitch is closed around the etching, and a solution of nitric acid and water, or other acids used for corroding steel, is poured on the die. The acid attacks the steel through the etched lines, or where the metal is exposed by the removal of the ground with the point. After the action of a few minutes with the acid, the same is removed, and if the biting is of the required depth for the lighter work, the same is stopped out with a varnish composed of asphaltum and turpentine; and for the parts which are to be made darker the process is renewed until the required depth of line is obtained, when the composition is removed by turpentine, and the work is finished by the graver, which is employed exclusively for cutting in the drapery and flesh, and all the small details.

The principal tools or instruments used by the engraver are the scraper, burnisher, etching-point, eye-glass, square and lozenge gravers, ruling machine, and geometrical lathe. After the die is thus finished it is proved, and is then ready for the hardening process and the transfer-press.

MINOR RULES.



WE will now give some indications which, though not infallible, are important.

PRINTING.

Genuine bank-notes are always printed with great care. The plate is covered with ink, which is then carefully wiped off, excepting what remain in the lines of the engraving; the impression is then taken with a powerful press, with great care and accuracy. This gives a clear and beautiful impression, which will be more or less wanting in counterfeits.

INK.

The ink used in genuine bank-note printing is of peculiar quality, and very difficult for counterfeiters to obtain. If black, it gives a clear, glossy impression, without any *smutty* appearance, such as is sometimes seen in counterfeits. The green ink used in Government work is *almost* impossible to imitate; and the red and other colors are almost as difficult. Genuine ink of any color has a more or less clear and *glossy* appearance, while counterfeit inks look dull and muddy.

PAPER.

Genuine bank-notes are printed upon paper composed of linen, and it is usually of good quality. It varies much in thickness, it being sometimes very thin. Persons who are not acquainted with paper sometimes pronounce the *thin* paper poor. It is, also, not impossible for counterfeiters to procure good paper. Out of twelve counterfeit notes now lying before us, four upon *very* poor paper, two upon rather poor paper, and *six* upon *very good* paper; one at least of the latter is upon paper of the *first quality*. It will be seen, therefore, that the paper, though important, is not infallible.

SIGNATURES.

The only thing counterfeit about a bill sometimes is the signatures, the notes having been stolen before they were signed. There can be, of course, no sure protection against this for all. Those who are well acquainted with the signatures of the officers of the bank where bills are stolen may not be deceived, as imitated signatures have a more or less cramped and unsteady appearance; but those who live at a distance cannot possess this knowledge.

ALTERED BANK-NOTES.

BANK NOTES are altered by raising the denomination.

Denominations are altered, first, *by pasting*. Figures or letters of larger denomination are pasted over the denominations of the note to be altered, first scraping the genuine until thin. This can frequently be discovered by simply examining it with a little care, and always by holding the suspected note up to the light, when, if pasted, the pasted parts will be darker, because thicker. A counterfeit \$50 greenback has been recently made to look like a genuine, by pasting on a portrait of Hamilton, cut from a genuine \$2 greenback.

Second, by taking out the denomination of the genuine with an acid, and printing in a higher with a counterfeit die. In this case, the ink will not be the same as the original; neither will the work compare with the original.

Another indication is that the acid will spread a little, taking out more than the counterfeiter intended, so that parts of the neighboring letters will be more or less injured. The paper, also, will be either bleached or stained by the acid, as can be seen most plainly upon the back.

In the United States bills, or greenbacks, the ones, twos, and threes have a circle of green lines radiating from the denomination. This circle can be found on no larger notes than threes, if genuine. This is an additional safeguard against altering United States notes. The solid print will also be found defective.

The second kind of alteration — that of broken banks to good ones — sometimes requires a close examination to detect them; but a good understanding of the principles here taught will secure any one from deception. To make this change, the *name of the Bank* and signatures of the officers *always* have to be removed, and new ones inserted, and generally the *name of the Town* and sometimes of the *State* are also changed. These must be removed by acid, and the work inserted will be counterfeit, and will be recognized as such by an application of the principles already taught. If the letters are shaded, it will be done by hand and not by the ruling engine, and will have the imperfections described in Ruling Work. If solid print, the counterfeit will have the faults given under that head. Sometimes only a part of the name is changed, and then the contrast between the counterfeit and the part not changed is more evident. There will also be marks of the acid, the same marks mentioned above, and the counterfeit signatures are apt to be faded, from some acid remaining in the paper, after removing the original signature.

GENERAL DIRECTIONS.

IN receiving bank-bills, first look at the general appearance of the bill, — casting your eye across it, — and if anything is wrong, it will probably catch your eye. Then examine the various parts more perfectly, examining the geometrical lathe work. Then examine the shading of the letters, — the ruling engine work, — and look for any indication of alteration in the title or denomination of the note. Examine the Vignettes and Portraits, noticing whether their style and perfection compare well with the standard work of the plates, and whether they are exactly the same. If there is engine ruling in the sky or water, you will have an additional proof. An examination of the solid print and engravers' names will confirm the decision, whatever it may be; and the printing, ink, and paper may also be considered in making a full decision. Such an examination of a note, with a very little practice, and a frequent reference to these standard plates, will secure any man of ordinary observation and intelligence against deception.

PARTICULAR DIRECTIONS

FOR DETECTING COUNTERFEIT GREENBACKS, NATIONAL CURRENCY NOTES, AND FRACTIONAL CURRENCY.

IN receiving the note, look at the general appearance, and if it is not perfectly satisfactory, compare it with the corresponding work in the book, as you will find parts of all the circulating notes (Greenbacks, National, and Fractional Currency, up to \$1,000) in this work, and if, on comparison, it does not come up fully to the standard, it must be counterfeit. One of the most successful counterfeits ever executed is the \$50 U. S. Greenback, which has deceived some of the most experienced. Certain parts of the genuine work are in this book, on Plate No. 2; and a person, having the book and magnifier, can, upon comparison, discover the difference at once.

In presenting to the public two plates of Scrip, or Fractional Currency, we wish to say that the 50 cent Scrip (which is the second on the plates) is the best executed counterfeit ever issued. It was engraved by a man who was an expert in the art, as thousands who have been made dupes to his nefarious designs can testify. He was finally arrested by the Secret Service Division, convicted, his plates secured, and his illegal business broken up.

REMARKS.

WE will add here a few suggestions, hints, and items, which, although important, could not be added elsewhere without confusing the mind of the learner.

GENUINE DIES ON COUNTERFEIT BILLS.

A genuine lathe die will sometimes be seen on a counterfeit bill. The die so used may have been stolen, although that is very difficult to do, as all such work is guarded by the best of safes and other protections. These dies, however, do not render the *other* work genuine. The ruling of the letters, solid print, in short, all the other work on the bill will be counterfeit,—and a *single piece of counterfeit work* condemns the bill.

CHECK BACKS.

The work upon the back of bills is usually done by the geometrical lathe, and therefore comes under Lathe Work. A beautiful specimen of check back is seen upon the Government notes, the "greenbacks." In attempting to alter such bills, the acid strikes through and destroys part of the back, which cannot be replaced. If the alteration be in the denomination, it will have to be altered in the

back, also, as it is usually expressed there, and such an alteration would be likely to stain through upon the face.

It will sometimes be noticed that two bank-notes that should be alike differ somewhat in size, one being a little shorter than the other; and this may excite some suspicion. It is owing, however, to a little shrinkage of the paper, after printing, and happens as often to genuine bills as any.

PIECING.

Some counterfeiters make ten bills of nine, by cutting a counterfeit note into ten pieces; one of these pieces is pasted into a genuine bill, cutting out a piece of the genuine of the same size. In pasting nine genuine bills in this manner, nine pieces are obtained, which, with one piece of counterfeit, will make a tenth bill, which is the profit. Banks will redeem the genuine parts of such bills at their fractional value. This operation is not a very successful one, as the difference between the counterfeit and the genuine will be very evident to any one who possesses a knowledge of the art here taught. To hide this difference, they generally deface the counterfeit part somewhat, and give the note a worn appearance.

The new National Currency, which has wholly taken the place of all other issues, except United States notes, is supposed by some to be entirely secure from counterfeiting, and, therefore, that no knowledge of detecting will be necessary, and no care in receiving such bills will be required. Such, however, is not the case. It is true that the remarkable excellence and abundance of the work upon the Government and National Currency, and the difficulty of imitating

the green, will render counterfeiting very difficult. It should be remembered that this currency offers *great inducements* to counterfeiters, and a successful counterfeit will repay great outlay and care, — for two reasons: first, the greenbacks will go anywhere in the United States, and if a counterfeit becomes known in one State or section, it can be taken to another; while counterfeits on local banks, when once known, are killed; and second, a plate may be prepared to counterfeit the currency of the National Bank in one town, may be run upon that till known, and then with simply a change in the title of the bank, be immediately changed to another bank, and thus, as fast as it becomes known, can go through all the banks in the United States, thus having an opportunity for *sixteen hundred* changes, thereby increasing the chances of success *sixteen hundred times*.

The fifty cent postal and fractional currency is already freely counterfeited; yet hundreds of such counterfeits pass without any question, where the application of the first rule in this work would detect the fraud; the lathe work would condemn them in an instant.

These facts are not mentioned to depreciate our new currency in any way, but to warn the public against a false security, and thus most effectually head off the rascally authors of counterfeit issues, by forewarning and forearming the people. Every man, woman, and child has occasion to handle more or less money; and if all would possess themselves of the knowledge here taught, counterfeiting would soon become a profitless business. We want to see a knowledge of this art in every place of business, — yes, in every house and cottage in the country. It has long been our

HEATH'S INFALLIBLE COUNTERFEIT DETECTOR.

business and our pleasure to forewarn and defend the people against the miscreants who tamper with the commercial life-blood of the nation, defrauding the poor, the widows, and the fatherless of their scanty store, and giving to all vexation and loss in place of security and profit; and we hope to still further disarm and paralyze them, by a more general diffusion of the knowledge of this art, by means of this work. Vigilant officers of police may do much to guard the community, but their most painstaking vigilance is not always successful; while a general knowledge of *detecting bank-notes by the engraving* will root out the very fangs of the *serpent*, — *Counterfeiting*.

LEGAL TENDERS.

THE bill, authorizing the issue of the United States Legal Tender Notes, was originated by Hon. E. G. Spaulding, of New York. This measure met with a vigorous opposition, alike from those who clung to past theories of finance, with reason or without; from parties whose private interests would be better served the greater the public distress; and from those who secretly or openly desired the triumph of the Rebellion; but it was supported by the leading men and best minds of the country, as the only practicable method of solving the financial problem.

The bill passed Congress February 25, 1862, authorizing the issue of \$150,000,000, in legal tender notes. This amount was increased by subsequent acts, until \$450,000,000 had been issued.

Previous to the war, there were sixteen hundred local banking institutions in the United States, operating under State laws. On the first day of January, 1861, the aggregate circulation of these banks was estimated to be \$202,000,767, of which amount the loyal States held three-quarters, or \$150,000,000. This circulation constituted a loan from the people to the banks, costing the banks nothing except the expense of issue and redemption, and the interest upon the amount of specie which might actually

be kept on hand for the latter purpose. By the issue of United States notes, the advantages of such inexpensive, non-interest bearing loans were transferred from the banks, representing only the interests of stockholders, to the Government, representing the aggregate interests of the whole people. By the investiture of these notes with the debt solving power, —making them a legal tender for all debts, public and private, in the United States, —they became at once the competent and favorite currency of the people, irrespective of State divisions; and being founded upon the whole property of the nation, through the power of the Government to tax that property to its full amount for their security, no question has ever arisen, as none ever can arise, unless in the minds of willing traitors to their country, of the absolute validity of these notes; in other words, of the faith of the American Government of the solvency of the American people.

NATIONAL GOLD NOTES.

THE same plates now employed in printing the National bank notes are used for the gold notes. The only change in the wording will be that where the words "National Currency" appear at the top of the present notes, the words "National Gold Notes" will appear; and the promise to pay will specify that the note is payable to the bearer in gold. They are printed on yellow or buff paper.

POSTAL AND FRACTIONAL CURRENCY



Acts of July 17, 1862, March 3, 1863, and January 30, 1864

By Act of Congress of July 17, 1862, the Secretary of the Treasury was authorized to issue notes of the fractional part of one dollar, receivable in payment of all dues, except customs, less than five dollars, and exchangeable for United States notes in sums not less than five dollars. Amount of issue not specified.

The Act of March 3, 1863, authorized the preparation and issue of fractional notes (in lieu of postage or other stamps then used as currency), exchangeable for United States notes in sums not less than three dollars, and receivable for postage and revenue stamps, and also in payment of any dues to the United States less than five dollars, except imports. The whole amount of postal currency authorized under this act, including postage and revenue stamps used as currency, was not to exceed \$50,000,000.

The Act of June 30, 1864, authorized the Secretary of the Treasury to provide for the engraving, preparation, and issue of notes of the fractions of a dollar; to adopt safeguards against counterfeiting; and to make regulations for the redemption of fractional and other notes when mutilated or defaced; and for the receipt of fractional notes for debts to the United States, except customs, not over five dollars,

and extending the provisions of the act to all other fractional notes previously authorized, and to postal currency and postage stamps used as currency, but continuing the limitation of the total amount to be issued at \$50,000,000.

NATIONAL BANKS.

By the National-Currency Act the Government guarantees the currency, and limits the amount to \$300,000,000; requires it to be well secured by gold-bearing Government bonds deposited with the Treasurer of the United States, with a margin of ten per cent; requires each bank to redeem its own notes in lawful money on demand, and to keep an adequate reserve for that purpose; makes it a legal tender for all taxes and other dues to the Government except customs, and for all salaries and other dues owing by the Government within the United States, except the principal and interest of the funded debt. It also makes it receivable by each National Bank for all ordinary debts due them; and each bank designated as a Depository is also required to receive it on deposit from all public offices. These provisions in the law operate to nationalize and de-centralize this currency. The United States Government tax of ten per cent on all State bank-bills effectually kills the issues of all State institutions, and consequently, the national currency, with all these advantages, has a wide circulation all over the United States, and connected as it is with the Greenback Legal Tender Notes, they together are the measure of value in carrying on the internal commerce of the country.

REDEMPTION OF MUTILATED TREASURY NOTES AND CURRENCY.



UNDER the rules of the United States Treasury, all mutilated United States notes are redeemed, according to the degree of mutilation. A note, with a certain portion of its superficial surface torn off, is never redeemed at its full value, but in proportion to the quantity of superficial surface presented for redemption. Since greenbacks were introduced, the redemption division of the Treasury has been constantly engaged in redeeming this mutilated currency; and an account of the discount has been kept, which shows an aggregate up to the present date of \$186,693, which the Government has thus saved, all of which has, of course, come out of the pockets of the holders.

In order to avoid such loss, and, at the same time, to secure fresh and clean currency in general circulation, business men should retain all soiled and defaced United States currency, and send it to the Treasury for redemption through National Banks, designated as depositories. Post-masters, Collectors of Internal Revenue and their deputies, can also forward United States currency by express to the Treasurer for redemption, in sums of \$100, or more, at the expense of the Department. Mutilated, soiled and defaced National Bank Notes will only be redeemed by the banks of issue except when such banks are in liquidation.

MICROSCOPIC OR MAGNIFYING GLASS.

THE beautiful fine lines required in the engraving of all bank-bills, even in moderately well executed counterfeits require the aid of the microscopic glass, and sometimes a microscope of great power is absolutely indispensable in order to discern the genuine line, and discriminate between the true and the false work. The ordinary magnifying glass now in use by banks has failed, in many instances, to bring out this delicate work sufficiently to detect some of the late skilfully-executed counterfeits. In order, therefore, to meet this difficulty, I have, after much labor, invented a combination Micro-telesopic Glass, and secured letters patent on the same, which is designed for use and sale with the "Detector."

This glass is a fine magnifier, a powerful microscope, and good field glass. By a simple change, this instrument is convertible into either one of the above-named glasses, and is very useful at all times, and for other purposes than the detection of counterfeits, and will be worth the cost for family use.

These glasses, now manufactured in Paris, will be furnished with or without the "Detector," by mail, prepaid, on receipt of price, \$5.00.

RECOMMENDATIONS FROM MEMBERS OF CONGRESS.

SERGEANT AT ARMS OFFICE,
U. S. HOUSE OF REPRESENTATIVES,
WASHINGTON, D. C.

LABAN HEATH, ESQ., has spent much time and labor in the perfection of his system for the detection of Counterfeit Currency, and, if properly encouraged by those most interested, I have no doubt will be able to aid the public materially in driving out of existence the numerous dangerous Counterfeits that are now afloat.

I can cheerfully recommend Mr. Heath as an upright, energetic man.

N. G. ORDWAY,
Sergeant at Arms, U. S. House of Representatives

I concur in the foregoing recommendation.

CHARLES B. HALL.
*Secretary of the Association of Banks for the suppression of
Counterfeiting.*

BOSTON, Mass.

U. S. HOUSE OF REPRESENTATIVES,
WASHINGTON, D. C.

The undersigned, having examined the Proof sheets and Plates of Heath's "Government Detector," concur in the utility of his system, and cheerfully recommend his work.

RECOMMENDATIONS.

- Hiram Price, President State Bank, Iowa, M. C., 2d Dist.,
Iowa.
- J. B. Grinnell, M. C., 4th Dist., Iowa.
- T. W. Ferry, Banker, and M. C., 2d Dist., Michigan.
- Charles Upsom, M. C., 2d Dist., Michigan.
- Columbus Deleno, President 1st National Bank, Mount Vernon,
and M. C., 13th Dist., Ohio.
- James M. Ashley, M. C., 10th Dist., Ohio.
- Francis C. LeBlond, M. C., 5th Dist., Ohio.
- Sidney Clark, M. C., Kansas.
- Delos R. Ashley, M. C., Nevada.
- Thomas N. Stillwell, Cashier 1st National Bank of Anderson,
and M. C., 11th Dist., Indiana.
- Godlove S. Orth, M. C., 8th Dist., Indiana.
- Shelby M. Cullum, M. C., 8th Dist., Illinois.
- John Wentworth, M. C., 1st Dist., Illinois.
- General H. E. Paine, M. C., 1st Dist., Wisconsin.
- Philetus Sawyer, M. C., 5th Dist., Wisconsin.
- Henry T. Blow, M. C., 2d Dist., Missouri.
- John Hogan, M. C., 1st Dist., Missouri.
- George W. Anderson, M. C., 9th Dist., Missouri.
- Ignatius Donnelly; M. C., 2d Dist., Minnesota.
- Adam J. Glossbrenner, M. C., 15th Dist., Pennsylvania.
- Myers Strouse, M. C., 10th Dist., Pennsylvania.
- George V. Lawrence, M. C., 24th Dist., Pennsylvania.
- Edmund Cooper, M. C., 4th Dist., Tennessee.
- Samuel McKee, M. C., 9th Dist., Kentucky.
- General Lovell H. Rousseau, M. C., 5th Dist., Kentucky.
- Charles E. Phelps, M. C., 3d Dist., Maryland.
- John L. Thomas, M. C., 2d Dist., Maryland.
- John A. Nicholson, M. C., Dover, Delaware.
- George Latham, M. C., 2d Dist., Western Virginia.

RECOMMENDATIONS.

John F. Starr, M. C., 1st Dist., New Jersey.
William A. Newell, M. C., 2d Dist., New Jersey.
John H. D. Henderson, M. C., Oregon.
D. C. McRuer, M. C., California.
Theodore M. Pomroy, M. C., 24th Dist., N. Y., and Chairman
Com. on Banking and Currency.
William E. Dodge, M. C., 8th Dist., New York.
Daniel Morris, M. C., 25th Dist., New York.
John A. Griswold, President Troy City National Bank, and M.
C., 15th Dist., New York.
Calvin T. Hulburd, M. C., 17th Dist., New York.
Hamilton Ward, M. C., 27th Dist., New York.
Henry C. Deming, M. C., 1st Dist., Connecticut.
Augustus Brandegee, M. C., 3d Dist., Connecticut.
James G. Blaine, M. C., 3d Dist., Maine.
Samuel Hooper, M. C., 4th Dist., Massachusetts.
Thomas A. Jencks, M. C., 1st Dist., Rhode Island.
James W. Patterson, M. C., 3d Dist., New Hampshire.
Edward H. Rollins, M. C., 2d Dist., New Hampshire.
Portus Baxter, M. C., 3d Dist., Vermont.
P. W. Hitchcock, Delegate in Congress, Nebraska.
W. H. Hooper, " " " Utah.
Arthur H. Denny, " " " Ter'y of Washington.
Samuel McLean, " " " Montana.
J. F. Chaves, " " " New Mexico.
John N. Goodwin, " " " Arizona.

EXAMINE YOUR BONDS AND BE SURE THEY ARE GENUINE WHILE THE PARTIES OF
WHOM THEY WERE PURCHASED ARE WITHIN REACH.

The American Bond Detector,

AND HISTORY OF

UNITED STATES GOVERNMENT SECURITIES.

Issued under the sanction of the United States Treasury Department.

The work contains a history of all bonds issued by the United States Government, commencing with those authorized under Act of Congress July 21, 1841, and closing with those issued under Act of March 3, 1868, known as the Five-Twenties of 1868, *with complete illustrations, printed from the original plates, in original tints of the bonds, with coupons attached*, issued under Acts of Congress from July 17, 1861, to March 3, 1868; making in all twenty beautiful plates, 10 by 13 1-2 inches, illustrating fifty bonds of different denominations. It also contains the one thousand dollar five-twenty (\$1000 5-20) counterfeit bond, printed from the plate recently captured by the Secret Service Division of the Treasury Department, with the facts and incidents connected with the arrest of the counterfeiters, and capture of the plate, bonds, etc., etc. Also, the Pacific Railroad bonds, together with the whiskey, beer, and cigar revenue stamps.

In addition to the above, the work contains nine plates, 10 by 13 1-2 inches, illustrating the obverse and reverse of a large portion of the coinage of the world. Also valuable and important statistics from the archives of the nation, etc., etc.

The illustrations in this work are printed at the United States Treasury Department, from the original dies in the possession of the Government, and are executed expressly for this purpose, by the authority and direction of the Secretary of the Treasury. They are printed upon soft, thick plate paper, which brings out the engraving more clearly and distinctly than the thin paper upon which bonds are printed, thus enabling examinations and comparisons to be made with greater ease and certainty than by the use of other bonds for that purpose, at the same time

THE AMERICAN BOND DETECTOR.

relieving bankers and dealers in securities from the inconvenience of keeping an assortment of all issues and denominations constantly on hand for the purpose of reference.

Being desirous of making this work unquestionably reliable, the publishers have spared neither pains nor expense in procuring the best talent the country afforded for that purpose. They have, in its preparation, relied chiefly upon the officers connected with the United States Treasury Department, all of whom have cheerfully rendered every assistance in their power to insure a successful consummation of the undertaking. They desire to acknowledge their obligations to Ex-Secretary Hon. Hugh McCulloch, and to the Hon. George S. Boutwell, Secretary of the Treasury, Judge Wm. A. Richardson and John F. Hartley, Esq., Assistant Secretaries; Wm. H. West, Esq., Chief Clerk, Gen'l Francis E. Spinner, United States Treasurer, Hon. H. R. Hulburd, Comptroller of the Currency, and John Jay Knox, Esq., Assistant Comptroller; Hon. E. C. Banfield, Solicitor of the Treasury, and Col. H. C. Whitley, Chief of the Secret Service Division. To Geo. B. McCartee, Esq., Superintendent of the Printing Bureau, George W. Casilear, Esq., Chief of the Engraving Department, A. B. Mullett, Esq., Supervising Architect, W. H. Andrews and J. R. Bigelow, Esqs., of the Loan Branch, and W. H. Coleman, Esq., Chief of Division in the Secretary's Office, they are deeply indebted for the great interest manifested to insure its success. To many others, not connected with the Government service, their acknowledgments are tendered, among whom are Jay Cooke, Esq., Hon. E. G. Spaulding, Hon. Wm. E. Chandler, late Assistant Secretary of the Treasury, Hon. Charles B. Hall, Cashier of the Boston National Bank, and Secretary of the Association of Banks for the suppression of counterfeiting; Hon. Hiram Price, formerly President of the State Bank of Iowa, Hon. John J. Cisco, J. W. LeBarnes, Esq., and James Ross Snowden, Esq., formerly Director of the United States Mint, Philadelphia.

For further particulars send for full descriptive circular.

This work will be sold only by subscription and authorized agents. Upon receipt of \$10, a copy of the work will be forwarded, free of expense, to any address.

LABAN HEATH & CO.,

30 Hanover Street, Boston, Mass.

DESCRIPTIVE PAMPHLET,

DESCRIBING IN DETAIL

The three different series of notes forming the currency of the country, with a Preface giving the process of making bank note plates; also, an Introductory to each series, followed by a correct description of each note, describing in detail the beautiful allegorical designs of vignettes; on heavy tinted paper printed in carmine and black.

This work is designed to accompany "Heath's Infallible Government Counterfeit Detector, at Sight;" the two combined completely covering the whole field of the art of detecting counterfeit Bank and U. S. Treasury Notes at sight. The pamphlet was also designed as a *guide*, to familiarize the public with the composition of the different notes forming the currency of the country, in order to enable them to judge *at sight*, whether or not the note had been raised from a LOWER to a HIGHER denomination. For this purpose the pamphlet is *infallible*.

We often think it strange that so important a matter is so sadly neglected. We have never yet met a person who could describe a single series of these notes; and all this time they are liable to be imposed upon by some of the following notes, viz.:—

Tens raised from **Ones**, — on the First National Bank of Manitonock, Wisconsin.
Third National Bank, Chicago, Illinois.

Twentys raised from **Ones**, — on the First National Bank of Springfield, Illinois.
Mohawk National Bank, Schenectady, N. Y.
Tradesman's National Bank, New York City.
Consolidation National Bank, Philadelphia, Pa.
Concord National Bank, Concord, Mass.
First National Bank, Boston, Mass.
National Bank of Redemption, Boston, Mass.

Fiftys raised from **Fives**, — on the Tioga National Bank, Oswego, N. Y.

One Hundreds raised from **Fives**, — on the Wyoming County National Bank, Warsaw, N. Y.

The National Bank of Bristol, Bristol, R. I.

Tens raised from **Ones**, — "Greenback" Treasury Notes.

Fiftys raised from **Twos**, — " " " "

And others are liable to be put upon the market at any day.

To Bankers we will say that this work might be rightly termed *indispensable*, for how important it is that they should be familiar with the composition of every note, and able to describe one in detail, without referring to it. Also, how much satisfaction there is in being able to describe the beautiful allegorical designs forming the vignettes on the different series of notes.

Upon receipt of one dollar, the work will be forwarded to any address, post paid.

LABAN HEATH & CO.,

PUBLISHERS OF THE U. S. GOVERNMENT COUNTERFEIT DETECTORS,

BY AUTHORITY OF THE U. S. TREASURY DEPARTMENT.

30 Hanover Street, Boston, Mass.

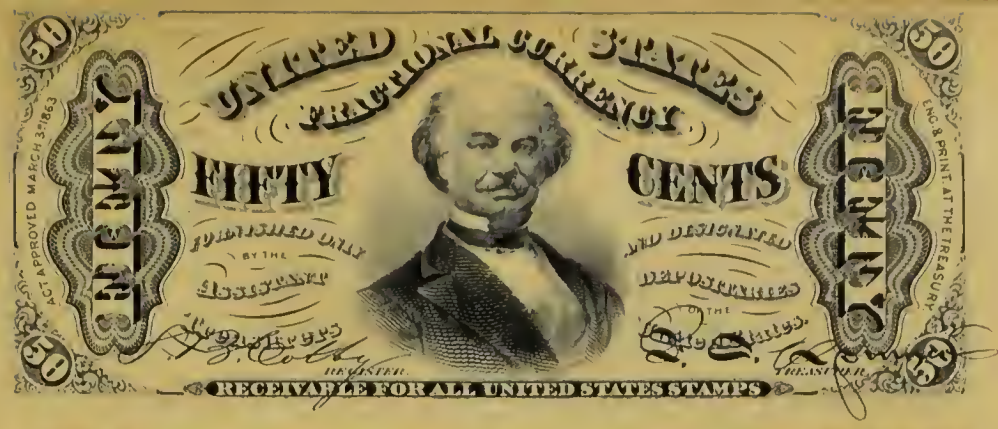
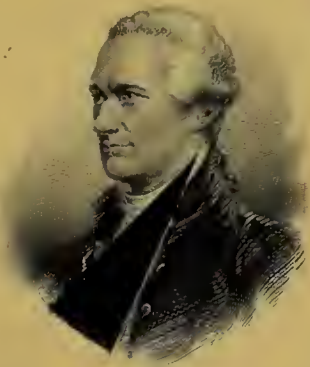
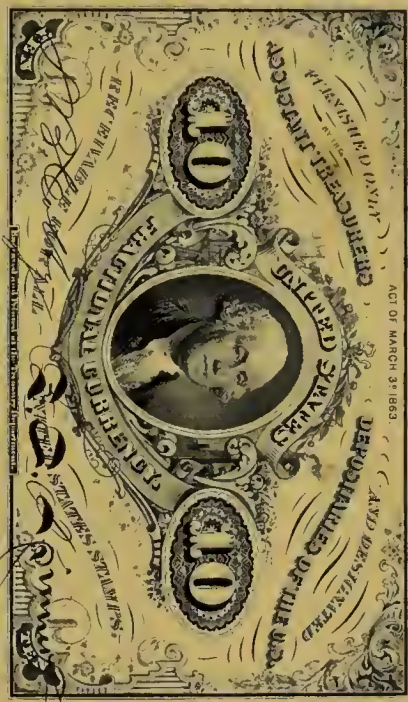
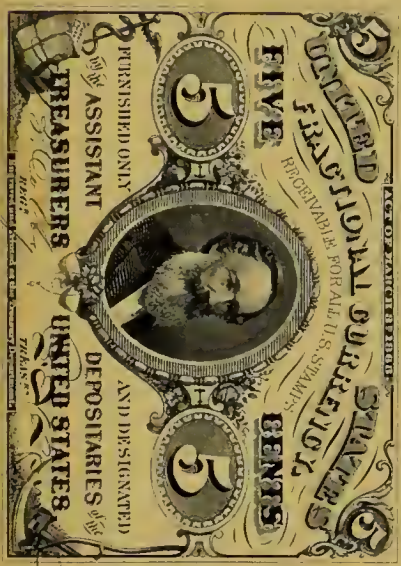
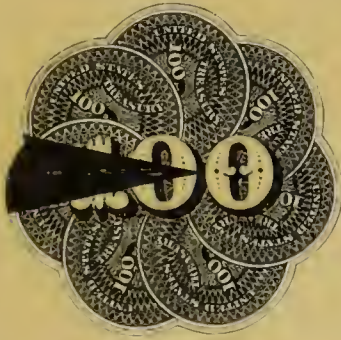


Plate VII







NATIONAL BANK NOTE C?NEW YORK



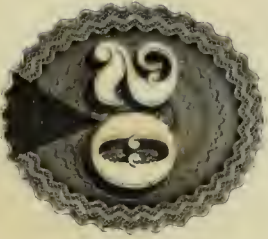
\$5 Green Bank.



\$10 Green Bank.



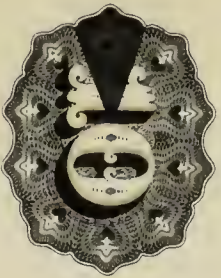
\$20 Green Bank.



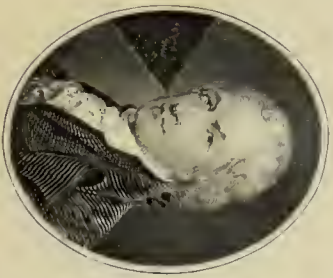
\$100 Green Bank.



\$100 Redwood Currency.



\$5 Green Bank.



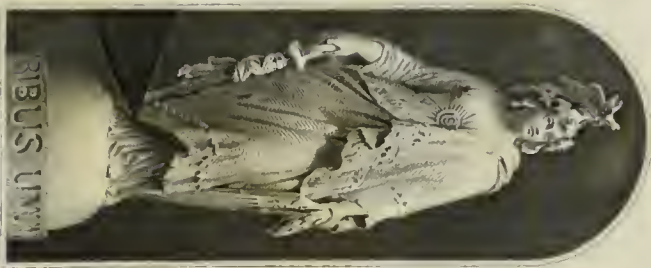
AMERICAN BANK NOTE COMPANY

Plate I.

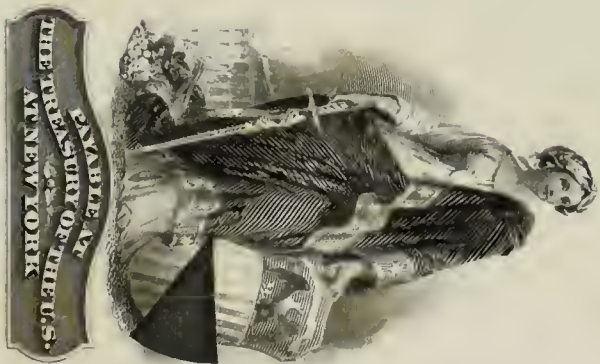
\$10 Iron Bank.



\$5 Iron Bank.



\$30 Iron Bank.



AMERICAN PATENT

Plate 4.



Front end of backs, National Currency Notes.

American Bank Note Co., New York & Boston



S. S. Atwood's



Plate 6.

*Seal of Henry Rogers on
S. S. Atwood's*



S. S. Atwood's



S. S. Atwood's



PLATE 7.
Right end of face of \$5 National Currency.



ENGRAVED BY THE CONTINENTAL BANK NOTE COMPANY, NEW YORK.



Right end of back vignette \$5 National Currency.

Plate 8.

Vignettes on Additional Currency Notes

\$10.



\$100.



\$20.



Pres!

\$50.



Pres!

Plate 9.

*Left end of Book \$50
National Currency*



*Right end of Book \$100
National Currency*



*Left end of Book \$10
National Currency*



*Right end of Book \$20
National Currency*





1000

NATIONAL CURRENCY

1000



Right & Left ends
of face of
\$1000.

Left end of back: \$1000.

Right end of back: \$500.



WASHINGTON RESIGNING TO
Eng'd by the National Bank



GENERAL BURGUYNE
National Bank Note Co. N.Y.

Left & Right ends
of face of
\$500.

500



ENGRAVED
By the

NATIONAL BANK NOTE CO. NEW YORK

NEW YORK AND CURRENCY

UNION PACIFIC STEEL

UNION PACIFIC STEEL

UNION PACIFIC STEEL

FIRST

NATIONAL BANK OF

WASHINGTON

TEN DOLLARS



SUPPLY OF STEEL

EXCHANGE BANK

ONE HUNDRED DOLLARS

First National Bank

Toymsend National Bank

