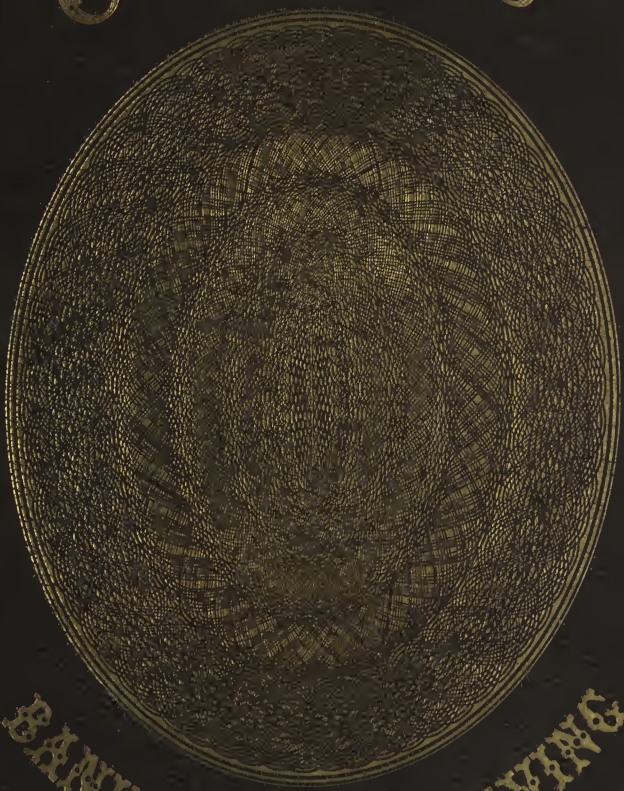
ORMSBY'S



BANK-NOTE ENGRAVING


MORRISANIA, WESTCHESTER CO.
STATE OF NEW YORK
THE MORRISANIA BANK
ONE
ONE
ONE
ONE
Cash.
Pres.

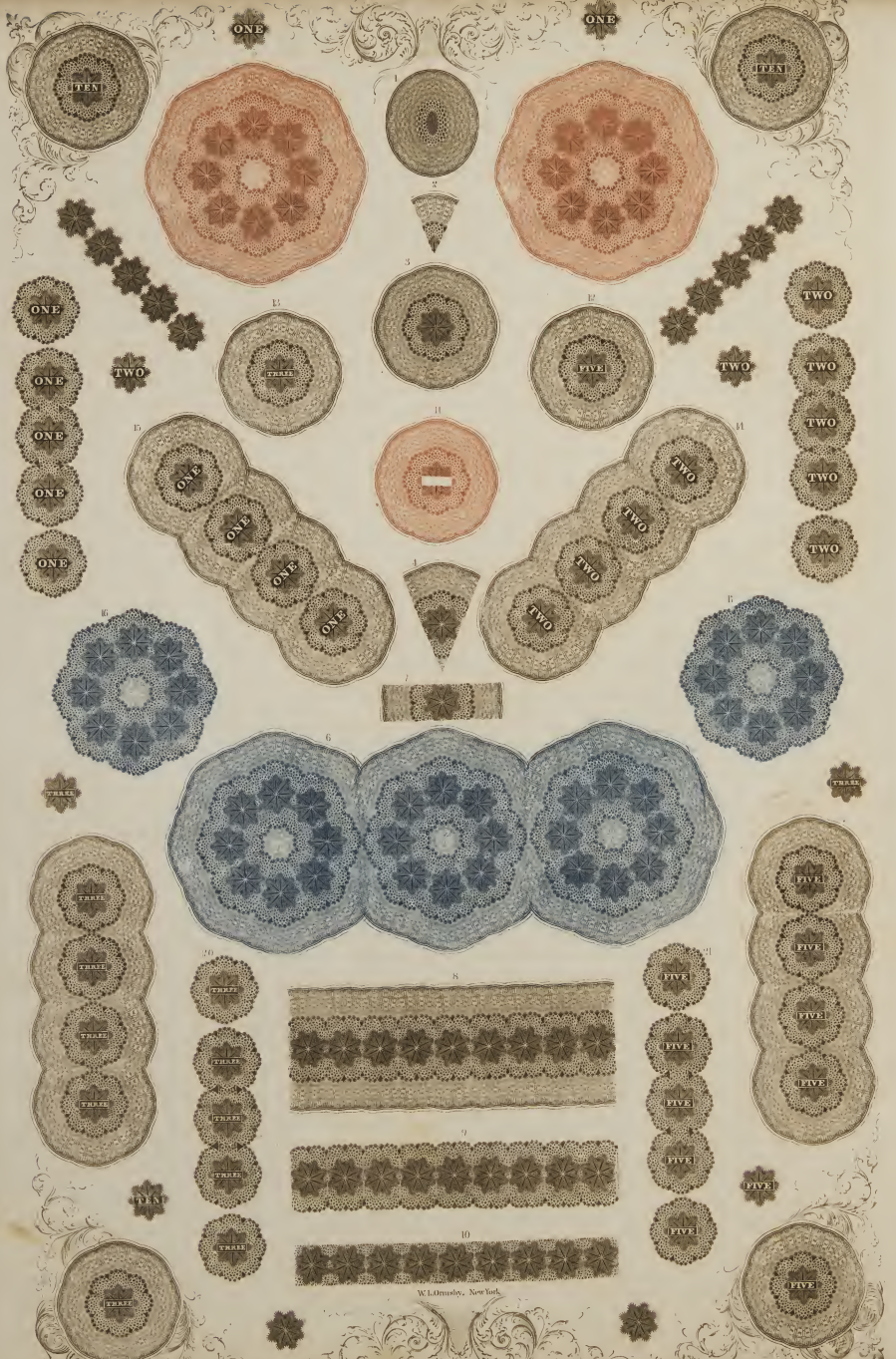


PLATE 5
ONE
TEN
1
2
3
4
THREE
FIVE
TWO
11
ONE
TWO
THREE
6
FIVE
8
9
10
W. L. Ormsbee, New York.

A

DESCRIPTION

OF THE PRESENT SYSTEM OF

BANK NOTE ENGRAVING,

SHOWING ITS TENDENCY TO FACILITATE

COUNTERFEITING:

TO WHICH IS ADDED A

NEW METHOD

OF CONSTRUCTING BANK NOTES TO

PREVENT FORGERY.

BY W. L. ORMSBY.

NEW YORK:

W. L. ORMSBY, 12 VESEY STREET.

LONDON:—WILLOUGHBY & Co., 22 WARWICK LANE.

MDCCCLII.

Entered according to Act of Congress, in the year One Thousand Eight Hundred and Fifty-two,

By W. L. ORMSBY,

In the Clerk's office of the District Court for the Southern District of New York.

W. WILLOUGHBY, PRINTER.
77 DUANE STREET, NEW YORK.

TO

THE PRESIDENTS AND DIRECTORS

OF

THE BANKING INSTITUTIONS OF THE UNITED STATES,

THIS WORK,

Aiming to set forth the greatest perils to which their Circulation is exposed, and to furnish a Remedy, uniting Artistic Beauty, Economy, and Security against Counterfeiting,

IS

Respectfully Dedicated,

With a reliance upon their aid in carrying into effect the important reform it proposes,

BY

THEIR OBEDIENT SERVANT,

THE AUTHOR.

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PREFACE.

It is with unaffected diffidence that this work is offered to the public. To expose the defects and dangers of the work of eminent Artists, with whom the Author has none but the most friendly relations, and for whose genius and character he entertains the highest respect, is a task too unwelcome to have been undertaken but from a deep conviction of its importance and necessity. For many years a professional Bank Note Engraver himself, the defects and bearings of the system of Engraving universally employed in this country upon Bank Notes, became, in the course of the Author's experience, so painfully evident, and the facilities which it afforded the Counterfeiter so obvious, that he was unavoidably constrained to seek some adequate remedy. An investigation of the subject soon disclosed the evil to consist in the use of labor-saving machinery and dies, and in the piecemeal or patch-work system of Engraving necessarily resulting from their use. The more the subject was considered, the more apparent its weakness became; until there arose in his mind a moral constraint to make it known, and to awaken the public attention to an evil so alarmingly prevalent, and so unavoidable under the existing state of things. The present work has had its origin in this feeling: and he cannot but persuade himself that the candid reader of his pages will arrive at the same conclusions to which his own sincere research led him, that there is no security against Counterfeiting so long as the present system of Engraving continues to be practised. The remedy proposed, is simple and practicable; and it is the writer's firm conviction that if it be universally adopted, Counterfeiting as now ordinarily practised, will be impossible.

This is, assuredly, an end in which all Banking Institutions, as well as the Public generally, have a vital interest. The losses occasioned by Counterfeiting are already enormous; and, under the present system of Engraving, they must inevitably become greater. The multiplication of Banks, and the increase of dies and machinery, are rendering the business of Counterfeiting so easy and so safe, that its rapid increase will be inevitable. But few persons, whose attention has not been directed to the subject, are aware of the alarming extent to which this dangerous crime is now carried. Our Bank Note Detectors teem with cautionary notices and descriptions of counterfeits, alterations of denominations, and other kinds of Forgery, all of which can be distinctly traced to the system of Engraving now universally in use. This evil will go on till the paper currency of the country becomes worthless, unless some remedy, covering all the sources of danger, be adopted.

Whether that remedy shall be adopted, it remains with Banking Institutions mainly to decide. It is for them to determine whether the perilous system now in use shall be prolonged, or whether a new system, avoiding the defects of the old, and affording the greatest possible amount of security, shall take its place. From Bank Note Engravers, whose interest, reputation, and capital are involved in the continuance of the present system, no aid in effecting the needful reform is to be expected.

Without imputing to them any motives other than the natural instincts of interest, to which all men are subject, the Author anticipates their opposition in any and every form,—by the authority of professional knowledge, by the imputation of unworthy designs, and by means of the pre-secured confidence of Banking Institutions. It is not natural to expect, from parties whose interests are affected by a proposed reform, any thing less than an opposition proportioned to the amount of their anticipated losses. If reform there be, therefore, it must spring from the enlightened convictions and wisdom of the Banks themselves. They can see the evil, and without any professional assistance, they are able to judge of the merits of the remedy proposed.

As they are the only sources from which Bank Notes emanate, they alone have the power to effect the change proposed. These Institutions have suffered more from misinformation on the subject of Engraving, than from the depredations of Counterfeiters; and if they continue to rely upon the suggestions of interested parties, every change will be likely to result, as heretofore, in making the original Engraving easy and profitable to the Artists, and still more expensive to themselves. And, as an inevitable consequence, rendering counterfeiting easy of accomplishment, and difficult of detection.

We enter the field of inquiry untrammelled by interest, seeking for no exclusive privileges, no emolument except the natural support of those for whom we labor, no favor except that of being heard and respected, and without any other aspirations than those of being useful—firstly, to Banks, by rendering their circulation secure against Forgery; secondly, to Artists, by opening a new resource for the exercise of their talents and enterprise; thirdly, to business men, by inspiring them with confidence in our great circulating medium, which now requires their constant watchfulness, and deserves their distrust; and lastly, to aid the cause of morality, by closing a royal road to crime, fraught with excitement, temptation, and ruin.

It is to Banks, therefore, that the Author looks for the support and encouragement in attempting to effect a reform, of which they will reap the first and greatest advantages. He appeals to their experience of the evil, and their candid good sense to determine the value of the change he proposes, uninfluenced by sinister suggestions of interested parties, or by prejudices in favor of that which has long been acquiesced in. With their concurrence, a change can be speedily brought about, which will give to our monetary currency a security to which it has long been a stranger, and which he pledges himself, every reader of these pages will be convinced, is impossible under the present system of Engraving.

Though complete in itself, the arguments and demonstrations of the present work would be greatly confirmed by a more minute description of the ways and means by which the genuine work of Bank Note Engravers finds its way into the hands of Counterfeiters. If duly encouraged in this undertaking, the Author proposes another and more elaborate work, giving a circumstantial history of a large number of elegant vignettes, denomination-work, and other parts of Bank Notes, engraved by the best professional Engravers, which have passed from the hands of their original owners into other hands. Some of these involve deeply instructive lessons, and much romantic interest; and their history will go to confirm the impression of the present work, that so long as dies and machinery are used, there is no security from the Counterfeiter.

NEW YORK, AUGUST 13, 1852. W. L. ORMSBY.

PART I.

An Explanation of Bank Note Engraving.

INTRODUCTION.

THE Art of Bank Note Engraving as practised in the United States, essentially differs from that of any other country. Our mode is more expeditious, and our notes more beautiful; but, that important feature, *security against forgery*, which ought to be paramount to every other consideration, seems to have been almost entirely disregarded, or, at least, to have escaped that attention, which a subject of such importance deserves.

It is well known that the country is inundated with spurious bank bills, many of them beautifully executed. Some are *genuine bills* of broken Banks, altered to represent those of good Banks. Some also, are impressions from *genuine plates* of insolvent institutions, which are changed in the lettering, to bear a general resemblance to any Bank in the country; and all genuine bills are now liable to be altered from low to high denominations. This flood of spurious paper is rapidly increasing, and the public seems to regard it as without remedy. Banks are often compelled to call in their issues, and procure new plates at great expense.

The following inventions are now generally employed in engraving bank-notes. The ruling machine, the geometrical lathe, the medal copying machine, and the application of steel to engraving purposes. These inventions, though in themselves splendid improvements, without a parallel in the history

of the fine arts, nevertheless, when applied to the manufacture of Bank Notes, furnish the counterfeiter with his chief facilities of fraud. For in order to make the above-named inventions available, the Bank Note Engravers are compelled to adopt a system of what may be called *patchwork;* of separate and distinct pictures, so arranged on a note, that one may be removed without materially defacing another. The lettering also, is separate and distinct from the ornamental portion, and may be altered, erased, and changed at pleasure. The same dies are used many times on the same note, and also on many notes—evidently increasing the temptation to forgery at every repetition. Such also, is the similarity in all our Bank Bills, that the counterfeiter is enabled to make *one plate* answer for a *multitude of frauds.*

Our present Bank Bills are so cheaply and expeditiously executed, and the pictures upon them are so indescriminately used, as to be open to the attacks of the counterfeiters in a great variety of ways. Now, if we are protected from an overwhelming issue of spurious money through the counterfeiter's want of knowledge of our imperfect system in manufacturing the original plates, it is important that the public should first understand that imperfection, and remedy it. But if counterfeiters already know the defects of the system, and are actually availing themselves of them, it is of still greater importance that the public should know them also, and take energetic measures to correct the evil while yet in its infancy.

Counterfeiters can now obtain well-engraved Bank plates in imitation of those of any institution in the country, and procure upon them the genuine work of the best artists, without their knowledge or consent. Many of the original vignettes, denominations, etc., now seen on notes in circulation, are at the counterfeiter's disposal. They have actually procured a copper plate from the original Bank Note Engravers, ostensibly for a mining company, and have erased and changed the lettering to represent a five hundred dollar Treasury Note. What more convincing proofs of the weakness of our present system of Bank Note Engraving in respect to security against forgery need be given?

It is time that our rapidly increasing Banking Institutions should investigate this subject thoroughly. It is time they should know why the Bank of England Notes, which are so plain and simple, are not counterfeited as readily

as our own, which are, apparently, so complicated, and so exquisitely beautiful. If it be a fact that the safety of our notes, in respect to security against forgery, has been sacrificed to the convenience of the artist in manufacturing them, and to the beauty of the Notes in their general appearance, the necessity for a radical change in the mode of manufacture cannot be questioned.

Objections may be raised to the publication of this work, on the ground that it conveys information to the counterfeiters which will enable them to practice their designs more successfully. This implies, that security against forgery consists in the secresy of manufacturing the original Notes.

But the truth is, that secresy is favorable to counterfeiters, who will soon discover any plan, however ingenious. Those who first succeed, obtain a monopoly of the business, and a monopoly of the business of manufacturing both the original and counterfeit Notes, is equally objectionable.

Publicity is favorable to the public. A thorough knowledge of the manner of engraving Bank Notes, will render the detection of a spurious production a matter of certainty; providing, however, the manner of constructing and executing the original Note is founded on correct principles.

The object and aim of this work will be, firstly, to prove that the present system of engraving Bank Notes is not founded on correct principles to prevent forgery. And, secondly, to describe a system which will give the utmost amount of protection in this respect.

A work of this nature ought certainly, to claim the serious attention, not only of Bankers, but of every philanthropic mind. If our Bank Notes are easily counterfeited, the temptations to crime are in proportion to the extent of our paper circulation. By rendering the counterfeiting difficult, we remove the temptation, and thus contribute to the advancement of human happiness.

It will be necessary for the reader to possess a thorough knowledge of this system in order to comprehend its defects; and this we believe will sufficiently explain our motive in giving a comprehensive view of the private, though simple arrangements of Bank Note Engraving Establishments.

Some of these Establishments have been in operation for nearly thirty

years, yet their process and machinery have never been explained to the public. As their secresy no longer serves to protect the public from a fradulent imitation of their labor, an exposition of them can do no harm, while it will serve to illustrate the obvious defects of the system they adopt, and the facilities which counterfeiters enjoy in imitating their work. Security against counterfeits must have some surer basis than secresy; for no monopoly of abilities, nor seclusion from the public eye, nor fidelity of professional artists, can protect these Establishments from the scrutiny of the fraudulent.

DESCRIPTION

OF

BANK NOTE ENGRAVING.

THE business of Bank Note Engraving is usually conducted by professional artists; though, as will be seen in the sequel, personal ability to engrave is not indispensable to the conductor of it. A capital of about two thousand dollars, an extensive acquaintance and influence with Directors of Banking Institutions, and apt business capacities, are all that are necessary to the prosecution of the art.

The usual components of an Establishment of this kind are, an office for the transaction of business; rooms for the engraving, hardening, and transferring of the dies to bank-plates; and a printing department of greater or less extent. No restraints are placed upon the workmen employed in the various departments of the business, which are not imposed upon those engaged in any other branch of mechanical labor. Whatever merit, therefore, is due to the Establishment for integrity and secresy, belongs equally to all the members of it, from the humblest errand boy to the principals themselves; for all have it equally in their power to take advantage of the facilities which the Establishment affords, for illicit purposes. The various instruments and machines used in the engraving of Bank Notes we will now severally describe.

THE TRANSFER PRESS.

The most important of the Bank Note Engraver's implements, is the Transfer Press. The function of this is to multiply the small engravings of the Note, without re-engraving, in perfect fac-simile, and to any extent. The facility which this machine affords for multiplying the finest engravings, enables the artist to spend more of his labor and skill in finishing his vignette, since it may be used many times over, in different designs for notes, checks, certificates, labels, etc.

THE RULING MACHINE.

The next in importance is the Ruling Machine, now universally in use among engravers. It is employed in a variety of forms, as in executing the sky of a vignette, the back ground of a portrait, the shading of letters, etc. which constitute no inconsiderable part of the actual labor to be done in Bank Note Engraving.

THE MEDAL COPYING MACHINE.

This machine is used for the execution of that portion of Bank Bills which resembles *bas relief*, and is generally attached to the Ruling Machine.

THE GEOMETRICAL LATHE.

This machine is used to produce the white line net-work seen in ovals, circles, and strips of Bank Bills, in which the figures denoting the denomination of the bill are placed It is seldom used after a few specimens are obtained; and many Establishments dispense with it altogether, content to purchase the productions of others.

These implements constitute all the machinery necessary to furnish the Bank Note Engraver's atelier, on the prevailing plan in this country. They are few and not expensive. Their average cost may be estimated to be as follows:

The Bogardus Transfer Press	$500.00
The Friction Ruling Machine, with the Medal attachment,	100.00
A variety of Geometrical Lathe work	50.00
Desk tools, together with a stock of blank plates and dies sufficient for the commencement of businsss . . .	150.00
Total . .	$800.00

THE PRINTING DEPARTMENT.

A well-fitted department for printing Bank Notes would require an additional investment for machinery, etc.; but it is an entirely separate branch of business, and may be procured of any professional printer, without the outlay of any capital in this part of the Bank Note Engraver's work.

BANK NOTE DIES.

We will now proceed to describe succinctly, the mode of preparing the Bank Note dies. All the vignettes, portraits, and scroll ornaments, that adorn the usual Bank Note, are first engraved on soft pieces of steel, of about the thickness of window glass, which are called in professional parlance, "bed pieces." A representation of one of these may be found in Plate One, Figure Two, where it appears in full size, with the engraving upon it. When finished, this bed-piece undergoes a process called "case-hardening"—a process so fully described in mechanical books, as to need no description here. It is then placed in the Transfer Press. (Plate One, Figure One, Number Two.)

The die is a steel cylinder, about two inches in diameter, of width varying from half an inch to about three inches, according to the size of the vignette or ornament to be transferred to it. Plate One, Figure Three, is a full-sized representation of a cylinder die, with the same engraving upon it that is seen upon the bed-piece in the same plate.

Now in order to obtain the engraving on the cylinder, or to "take it up," as it is technically called, it is placed upon the bed-piece in the Transfer Press, (as seen in Plate One, Figure One, Number Three.) A heavy pressure is put upon the cylinder by means of the foot-lever (Number Four,) and the beam (Number Six,) moved backward and forward by means of the hand-lever, (Number Five,) by which the soft steel of the cylinder, is pressed upon the hardened bed-piece, until a complete impression is made upon the cylinder in relief. The cylinder die thus produced, without the slightest possible defacement or injury of the bed-piece, is then case-hardened, and is ready for use in transferring the engraving upon it to any required place, in a steel plate for a Bank Note, or any other purpose.

THE GEOMETRICAL LATHE-WORK.

The figures on the Bank Note denoting denomination, as 1, 2, 3, 5, etc., are obtained on the die in a finished state, in the following manner: The lathe-work is taken up on a cylinder in the manner previously described, and the figures, or letters, are scraped off, to produce the white face figures, as seen in Plate Four, Figure One. An impression of the die is made on a

steel bed-piece, and the letters are "finished up" by the engraver. The bed-piece is then hardened, and a die is again taken up, to give the finished impression seen in Plate Four, Figure Two. By this process, the various figures seen on Plate Four, are made ready on the several dies, to be used in transferring these engravings into plates for Bank Notes.

MULTIPLYING GEOMETRICAL FIGURES.

A single lathe-work oval can be multiplied into an almost unlimited variety by the following process. The oval, (Plate Five, Figure One,) is taken up in relief on a cylinder die, and scraped off again, except a section of one-eighth of a circle. Thus prepared, the die will give the impression seen in Plate Five, Figure Two.

Figure Two is then transferred to a steel bed-piece eight times, and produces the impression seen in Plate Five, Figure Three.

A die is then taken up from Figure Three, and scraped off again, leaving another section of one-eighth. The figure will now be larger, as seen in Plate Five, Figure Four.

Figure Four is also transferred eight times, to a steel bed-piece, producing the impression seen in Plate Five, Figures Five and Five.

Figure Five can also be used for the back plates of Notes, as seen in Plate Five, Figure Six.

A parallel section of Figure Three is taken up on a die, giving the impression seen in Plate Five, Figure Seven.

Figure Seven is then transferred to a steel bed-piece, giving the impression seen in Plate Five, Figure Eight.

From the bed-piece of Figure Eight, dies are made, to produce the impressions seen in Plate Five, Figures Nine and Ten.

From the bed-piece of Figure Two, a die is taken up, and a portion in the centre is scraped off, to produce the impression seen in Plate Five, Figure Eleven.

In the bed-piece of Figure Eleven any required letters may be engraved, and dies taken up to produce the impressions seen in Plate Five, Figures Twelve and Thirteen.

Figures Twelve and Thirteen may be transferred in a variety of ways, to vary the design, by matching in different places. Sections of these figures may also be taken up to give the impressions seen in Plate Five, Figures Five and Five. The letters Three and Five would then appear eight times, in the eight stars formed in the circle.

From Figure Five, a die may be taken up, and scraped off again, leaving the central portion, and will give the impressions seen in Plate Five, Figures Sixteen and Seventeen.

From the bed-pieces of Figures Twelve and Thirteen, dies may be taken up, and scraped off again, leaving the portion in the centre as before, and they will then give the impressions seen in Plate Five, Figures Twenty and Twenty-one.

These figures can be changed, varied, and multiplied, by continuing the process, to any length.

THE MEDALLION.

The Medallion is the ornamental portion of the Bank Note engraved by machinery, resembling *bas relief*. (Plate Six.) It is made principally by the plain Ruling Machine, with the medal attachment, which copies, by a succession of lines running entirely across the design, whatever medal, coin, or relief pattern is placed in it. The medals most generally used for Bank Notes are selected from specimens obtained from plaster image venders; though original designs are sometimes procured for the purpose.

THE LETTERING.

The name of the Bank, the State, and the Town; the number, check-letter, Cashier and President; the words "will pay," "to bearer," "on demand," "Ten Dollars," etc., are all transferred to the bank-plate, in a short space of time, by means of dies, which will answer the purpose for any number of plates.

The title of the Bank is most usually required to be engraved anew; though in the regular course of business for years, an Engraving Establishment will be apt to accumulate a number of titles, such as Farmers' Bank, Merchants' Bank, or Mechanics' Bank, which will answer for plates of any Bank of the same name.

THE COMPTROLLER'S DIE.

This die is peculiar to the Bills issued by the Free Banks. The vignette design embraces the arms of the State in which the Bank is located. The words "countersigned and registered in the Bank Department," or others of similar import, usually make the border of the vignette, in an oval form, as in Plate Three, Figure Two.

THE RED LETTERS.

The red letters, ONE, TWO, THREE, etc., seen on the back and face of many Notes, as if the ink had penetrated the paper at one impression, are made by the following simple process: wood or metal cuts of the required letters are placed in a common printing-press; the "form" inked with red. The first impression is pulled upon the "tympan sheet," which moves on a hinge. The form is inked again with red; the bill placed upon it, and an impression made upon its face, while at the same time, a corresponding impression is made upon the back, by an offset from the tympan sheet.

Such are the processes by which a Bank Note is engraved in this country. The simplicity and ease with which they are performed, will thus be seen. To complete our survey of the Bank Note Engraver's business, let us estimate the necessary amount of capital required successfully to carry it on.

CAPITAL.

The amount of capital required to purchase the machinery and the stock requisite to commence the business, we have estimated to be Eight Hundred Dollars. To this must be added the cost of engraving and preparing the first set of dies. If the conductors of the business are themselves professional artists, they will produce by their own labor, in a few weeks, vignettes, denominations, etc., sufficient for the execution of a bank-plate, without any further outlay of capital. But if not professional Engravers, which is sometimes

actually the case, the sum of One Thousand Dollars would be sufficient for this purpose; making the total amount of capital required, One Thousand Eight Hundred Dollars.

PRICES.

The established prices for engraving and printing Bank Notes are the following:

Engraving a steel plate of four Notes, of any denomination	$500.00
Half plate	250.00
Printing a plate of four Notes, per one hundred impressions	2.50
Half plate	1.50

COMMENCEMENT OF BUSINESS.

At the commencement of business, if an order be received for a full suite of plates for the Railroad Bank, for example, which has a circulation, we will suppose, of three hundred thousand dollars, the plates may be arranged as follows:

One whole steel plate, containing four Ones.	
" " " " "	three Twos, and one Three.
" " " " "	two Fives, one Ten, and one Twenty.
One half plate . . "	Fifty and One Hundred.

The supposed circulation of the Rail Road Bank will require the following amount of printing:

20,000	impressions of the Plate of	four Ones, giving	$80.000
10,000	" " "	Twos and Threes	90.000
1,500	" " "	Fives, Ten, and Twenty	60.000
500	" " "	Fifty and One Hundred	75.000
32,000	" making the supposed circulation of		$305.000

The Printing may be procured, without expense to the Engraver, of the best copper plate printers, for one dollar and a half for one hundred impressions.

Thirty-two thousand impressions will therefore cost the Engraver .	$480.00
Add the amount invested in dies, machinery and stock, as before estimated	1,800.00
and we have a total of	$2,280.00

This comprises the whole amount of capital requisite to commence the business of Bank Note Engraving, and to execute the first order.

For the above work, the Artist's bill to the Bank will be as follows:

Engraving Plate of Four Ones	$500.00
" " Twos and Threes . . .	500.00
" " Two Fives, One Ten, and One Twenty	500.00
" Half Plate of Fifty and One Hundred .	250.00
Printing 32,000 impressions, full Plate, at $2.50 .	800.00
" 500 " half Plate, 1.50 .	7.50
	$2,557.50

If we now deduct the whole amount of investment as before estimated, 2,280.00 we shall have a remaining balance of profit, on the completion of the first order, of Two Hundred and Seventy-Seven Dollars and Fifty Cents, without taking into account the small profits on bank-paper, certificates of stock, cashier's checks, drafts, etc.

Extensive influence with the Presidents and Directors of Banking Institutions is only necessary to secure a rapid succession of orders, which, after the first outlay for machinery, and the accumulation of dies, can be executed with great rapidity and cheapness. The system of engraving the Bank Note as we have shown, requires only a few dies, in order to effect a great variety of changes; as these dies have never been known to wear out by use, it would be quite possible to make one set answer the engraver's purpose for any length of time. If the use of dies in the engraving of Bank Notes were, as is supposed, really a security against forgery, it would be desirable in a moral point of view, not less than for the pecuniary profit, to make use of but one set for the execution of any number of plates.

But if on the other hand, the temptations to counterfeit any vignette, or design upon the Bank Note, be in proportion to the number of times that vignette is repeated on other Notes, it must be obvious that the dies ought not to be used more than once. If every repetition of Bank Note dies facilitates the imitation and illicit use, a fact which we shall fully illustrate and prove, no one unconnected with Bank Note Engraving Establishments will presume to recommend the employment of them any longer, at least, for the purposes under consideration.

CONCLUDING REMARKS.

The above description apprises the reader of the great improvements which have been introduced into the business of Bank Note Engraving within a brief period. In order to render these improvements still more intelligible to the general reader, we will remark, that about fifty years ago, an Engraver was employed almost a week in executing a single Copper-plate Bank Note, the usual price of which was Eight Dollars. By means of late inventions, Artists are now able to execute a more beautiful Steel Plate of a single Note in three hours, for which One Hundred and Twenty Five Dollars is the usual price. Where the old Engravers produced one Plate, the Artists of the present day produce twenty; and where Banks formerly paid Eight Dollars, Institutions of the present day pay One Hundred and Twenty five. Yet it may be easily demonstrated that the old style of Note possessed, in every respect, a greater security against forgery.

It may be mentioned in further illustration of the facility with which Bank Plates are produced under the present system, that Plate Seven, a representation of a Plate of four Ones, with the lettering complete for the Rail Road Bank, was executed by a son of the writer, seventeen years of age, in twelve hours. The same young man, though not a practiced Engraver, can effect an imitation equally perfect, of any Bill or Plate used in this country, with the same rapidity, by procuring the engraving of the separate parts, by different Artists, and composing them together, as this was done.

He can accomplish all this without giving any cause of suspicion as to his ulterior object. Every Bank Bill in this country is composed of many separate and distinct parts; and as the original plates are engraved in parts, so the counterfeiting of them can be effected in parts also. The counterfeiter is

not obliged to execute his fraudulent plate himself, nor to reveal his criminal intent to those whom he employs.

Some idea may thus be obtained of the facility with which counterfeiting may be effected—an idea which will be fully illustrated in the subsequent pages of this work.

PART II.

Counterfeiting Exposed.

THE explanation given in the preceding pages of the system of Bank Note Engraving practiced in this country, and of the Machinery used in its execution, will have suggested to the reader the facility with which Counterfeiting can be effected. There is not merely an absence of that security so vital to the monetary interests of the community, but a virtual inducement to this grave crime, in the prevailing system of engraving, which admits of no remedy, except by an entire change in the mode of constructing the Note. It is our purpose, after indicating in some degree the extent of these fraudulent practices, to point out and describe a certain and effectual remedy, or, at least, a remedy, as we think, the most certain, and the most effectual of any that can possibly be devised.

Many of those to whom this work especially addresses itself, are already painfully familiar with the frequency, success, and impunity with which the business of counterfeiting Bank Notes is carried on. The public generally may need to know the extent of it, as perceived and understood by those whose business furnishes them with the means of knowing. The following significant extracts from that able work, the Bankers' Magazine, the statements of which can be abundantly confirmed from other sources, will illustrate the subject:

"There have never been, in the History of Banking, such vast quantities "of counterfeit paper thrown upon the community as at this period. The "Engraved Plates of more than two thirds of the Banks in this country have "been so successfully and fraudulently imitated, that few persons are enabled "to descriminate between the genuine and the false paper.

"There never has been a time in the history of financial matters in which "the issues of spurious currency have been so copious and universal. The "highest application of ingenuity of which the mind is capable, seems to have "been employed in securing the ways and means of throwing upon the "community spurious issues in every branch of the department."

"Well executed engraving; changes from lower to higher figures in the "denominations; cutting notes to pieces, dividing them in such a way that "four good bills make five shorter ones, but so deceptive that very few per-"sons would detect the fraud.

"The best security which the community and the Banks can obtain against "spurious Notes, is the employment of the best Engravers and Printers for "Bank issues. We rarely find any attempt made to counterfeit the best exe-"cuted Notes. Counterfeiters generally imitate the work of the second or "third rate artists and printers.

"We have now before us several specimens of newly engraved Bank Notes "from the press of Toppan, Carpenter, & Co., whose advertisement will "be found on our cover. These plates were executed for the new Bank "of Commerce, in Boston, and for the John Hancock Bank, at Springfield, in "this State."

The writer of the foregoing, is perfectly correct in regard to the prevalence of spurious paper; but in regard to the means of suppressing the issues, he is not so fortunate.

The business of engraving Bank Notes is confined to a few Establishments, of about equal talent, and it is unjust to elevate one above another.

The value of a special commendation of the work of Messrs. Toppan, Carpenter, & Co., may be understood by the following announcements in "Thompson's Reporter," which appeared not far from the same time:

John Hancock Bank, *Springfield.*,..... ¼
[*J. M. Thompson, Pres.—E. D. Chapin, Cash.*]
5s, & **10**s, altered from genuine ones—viz. to the left shield, with stars and stripes, eagle, national armory, houses, etc.—female head on right margin.

Bank of Commerce, *Boston*,..... ¼
[*Edwd. C. Bates, Pres.—W. H. Foster, Cash.*]
5s, & **20**s, altered from genuine ones by the pasting operation.
10s, said to be in circulation—we have not yet seen them.

Yet, these results are by no means to be imputed to the lack of professional skill and ability of this well-known Establishment. It is the inevitable result of the system, which they, in common with all Bank Note Engravers in this country adopt. So long as the system of detached work is employed no

skill of the Engraver, no exquisite elegance of execution will be beyond the Counterfeiter's ability either to imitate, to alter, or to obtain.

RULES FOR CONSTRUCTING A BANK NOTE.

The great desideratum in a system of Bank Note Engraving, is, to secure the greatest possible protection against forgery. All plans for the attainment of this end, must be tested by a few general principles, and among these the following are self-evident:

First.—A perfect system must proceed upon the principle of defiance, and not of secresy.

Second.—The merits of any plan will be in proportion to the degree in which it shall possess the property of compelling the forger to adopt the same process in imitating it, that has been used in the creation of the original Note; thus TO FIX upon the forgery all the difficulties of the original execution.

The true basis of security, so far as the engraving and printing of a Bank Note are concerned, is, to achieve some description of work which can only be imitated in the same way in which it was originally produced; for then, whatever of DIFFICULTY is *given to the original plate, the same difficulty must lie in the way of the forger who copies it.* If any of the processes, or effects of the Note, may, by ingenious and evasive contrivances, be produced in an easier method than in the original plate, the difficulties bestowed upon the original will evidently afford no security against forgery. Thus, for instance, if any effect produced in any original Bank Note by machinery, can be imitated by hand, it is clear that no security attaches to such an effect, however elaborate the machinery used in the original. This, of course, holds in every other respect as well as in regard to machinery.

Third.—The general design and execution of the whole Note, must be such, that neither the *name* of the Bank, nor the *denomination* of the Note, can be *changed* or *altered.*

VIOLATION OF THESE RULES IN THE PRESENT SYSTEM.

Now let us test the adequacy of the present system by these obvious principles.

First.—The business of engraving Bank Notes, has always been, more or less, conducted in secresy. The process of printing the large red letters T W O etc., already described, simple as it may appear to the reader, is known to a few Artists only. Its secresy is no security against its imitation, as is evident from the fact that it is so imitated. Secresy in any particular furnishes no security, but rather facilitates the Counterfeiter's purpose; for, when he discovers the secret, he can practice his business also in secret, and thus reap an equal advantage from it, with the original inventors.

Second.—We often find the same denomination-figure repeated several times on one Bill. In order to do this, the Engravers use a Transfer Press, and a die. The Counterfeiter accomplishes the same thing, even more perfectly, by printing an impression from one Plate, several times on the same Bill.

Our Bank Note Engravers are in the habit of using the same dies for many Banks, the same dies for drafts, checks, certificates, and sometimes for medicine labels. The Counterfeiters, by a little management, obtain the genuine work of the professional Bank Note Engravers on such plates, and multiply them by the Electrotype Process, which is more simple, and more perfect, than the Transferring Process of the original Artists.

The Oval of the Geometrical Lathe was only difficult to imitate so long as the Lathe itself was kept secret, and even then it was so closely imitated by a pair of steel dividers, as to escape detection. But now, the best genuine productions of the Machine are in common use; therefore, Counterfeiters no longer imitate, but employ the original. So also with regard to the Medallion; the Counterfeiters possess the original machine, the original models, and therefore, produce original work. Counterfeiters possess the Transfer Press, and many of the genuine dies which were used in engraving the Bills now in circulation! Hulseman used the Transfer Press to engrave his counterfeit plate on the Cattskill Bank, and employed original dies for that purpose.

Third.—The design is often purposely arranged, so that the *name* of the Bank, the State, and the Town, may be changed and altered. The columns of the Counterfeit Detectors prove, that the great majority of frauds consist of altered Notes, from broken Banks to those in good repute, and from low to high denominations.

The State Bank of Ohio employs one form of Bill for its forty one branches. A counterfeit on one, is a counterfeit on forty-one institutions; and the temptations to crime are increased precisely forty times!

Thus the rules for giving security against forgery, are plainly violated, either as a matter of economy to the Banks, or, facility to the Engravers; and in this point of view, the Banks, the original Artists, and the Counterfeiters, equally share the advantage of rapidity in the manufacture, both of genuine and spurious Bank Notes, while safety to the public is quite disregarded.

THE COUNTERFEITER'S PROCESS.

Let us now inquire how the Counterfeiter obtains his stock of Bank Note dies and materials.

Our Banking Institutions sacrifice, as we think, their interest to their dignity, in employing the largest Establishments at very high prices, while the Counterfeiters obtain, by stratagem, equally good work at a small outlay of money. For example, it is well known that several Label Engraving Establishments employ all the machinery of a Bank Note Establishment of the first class, and only charge a small sum, in comparison, for their work. A Label Engraver who possesses the facilities, could clear One Hundred Dollars per day, in executing, on steel, at Twenty Five Dollars each Note, those seen in Plate Eight. Now, what can prevent a Counterfeiter from obtaining such plates? If the Artists refuse to execute the work in the form of Bank Notes, the Counterfeiter can obtain each vignette on seperate pieces of copper, under some pretence to cover the fraudulent design. He can then *cut up* the plates, and match the pieces together in a variety of forms.

Thus, he can actually obtain the materials with which to compose Bank Note Plates, more cheaply and speedily than the original Artists can produce them by means of their dies and Transfer Press.

It is well known, likewise, that there are many Business Cards in use, which bear a general resemblance to Bank Notes of various denominations. The engraving upon them is often of the best description; indeed, the vignettes are generally the impressions of genuine Bank Note dies. The cost of a plate of this description is about Twenty-five Dollars. Now, if a Counterfeiter can obtain one such plate, he can erase, and change the lettering, and

thus use the plate to perpetrate a fraud, with considerable chance of success, on every Bank in the country, one after the other, though the little pictures may not correspond exactly, to any of the Bills imitated. There is at present, no ready means of comparison, and if the general appearance is good, any one would be readily deceived.

Thus, at an expense of Twenty-five Dollars, the Counterfeiter can obtain the general form of a Bank Note, which may have upon it the original work of the very best original Bank Note Engravers in the Country.

It is proper to remark, in this connection, that Label Engravers, are cautious about rendering assistance to Counterfeiters. An instance is known when a person refused an offer of three thousand dollars to stamp a few dies, in a particular form, on a copper-plate, which could have been done in half-an-hour, in defiance of any law on the subject, except, of course, the law of morality. The owner of the Medallion dies, seen on Plate Six. has often declined to use the work for common purposes, solely because the style of work was employed, to a great extent, in the manufacture of Bank Bills, in which businesss he has had no interest whatever for several years. He has repeatedly refused to transfer his Dies into plates, because the ultimate use to be made of them, by persons ordering the work, was not satisfactory.

THE FIRST INVENTION OF THE AMERICAN NOTE.

When Mr. Perkins first invented the process of transferring engraved vignettes from one piece of steel to another, about the year 1819, he deemed it to be a proof against counterfeiting. He went to England in company with Messrs. Murray and Fairman, and applied for the engraving of the Bank of England Notes They published a pamphlet on the occasion, setting forth the claims of the new invention to security against forgery; and Mr. Heath, a celebrated English Artist, joined the company, and aided materially in enriching their embellishments.

The Bank of England appointed a committee to examine the "American System" as it was called; and a book was published which completely exposed the fallacy of the plan. The Bank of England Note has consequently remained to this day, a plain affair, yet far more difficult to counterfeit than any of our own Notes. The book alluded to is now in the possession of the writer; and, inasmuch as it exposes the weak points of the system of engraving

Bank Notes, which we are describing; and, inasmuch as it contains the true principles upon which to base a true system, which will give the greatest possible security against forgery, we will republish such portions as are applicable to our present purpose.

The work in question is entitled, "An Analysis of the true principles of security against Forgery; exemplified by an Enquiry into the sufficiency of the American plan for a New Bank Note; with imitations of four of the most difficult specimens of those Notes, made by ordinary means; by William Congreve, Bart., M. P., A. M., and F. R. S. London, Printed by J. Whiting, No 3, Lombard Street, 1820."

In the "Introduction," the Author remarks:

"When I undertook the duty of a Commissioner of Enquiry as to the best "means of preventing Forgery, I was so deeply impressed with the immense "importance of this question, in all its branches, that I have devoted myself "with the most unremitted zeal to the acquirement of information by every "experiment and research in my power. As a Commissioner, I have, of "course had opportunities which I could not otherwise have obtained. Such "information, however, is but of little value without the most patient and "laborious analysis, so generally do first appearances deceive; a most remark-"able proof of which will be seen in the American Note.

"The public are already in possession of a small volume which I printed on "the "Protection of the Metallic Currency;" and as the Commission has now "terminated its labors, I am anxious to redeem the pledge given in that little "work, of endeavoring to apply a similar mode of reasoning to our paper cur-"rency; so as to reduce the question of its security also, as far as possible, into "the shape of a regular system or science, founded upon certain fixed princi-"ples, which might enable the public to come to some positive and unerring "conclusion on a point which seemed full of doubt, and which the majority "were inclined to consider as hopeless. In doing this I have two immediate "objects in view—

"First.—To promote general confidence in the paper currency of the coun-"try, by proving that the means of real security in Bank Notes do exist.

"Secondly.—To shew in what way the true principles of protection may be

"extended to every branch of that currency, to the provincial paper as well "as that of the Bank of England, without either of these branches interfering "with or diminishing the security of the other.

"In pursuing these objects, I have not contented myself with deductions "drawn merely from argument and reason, but have had recourse to the "demonstrations of actual example, and the real proofs of analytical experi- "ment. To this end it was necessary to select some particular plan, which "I might treat as it were anatomically, and by the dissection and examina- "tion of which I might discover its defects, and thence attain a remedy. "Now the Note which I have chosen for this purpose is the American "Note, because, amongst other reasons which will be presently explained, "it contained a great variety of contrivances, and indeed might be said "to comprehend samples, extremely well combined, of those principles "that had *hitherto* been considered as forming the basis of security against "forgery. The result of this analysis is this general conclusion, that *there* "*is no real security against forgery* to be achieved in one color, to which the "American Note is limited.

"Whether the works of such Artists as Mr. Heath, were or were not "a part of the original intention of the Americans, is a matter of very little "importance: they now actually do form a very large portion thereof. As, "therefore, the main object which I here have in view is to consider the "merits of the plan, actually as it now stands, I am bound to look at Mr. "Heath's work as an integral part, though I fear it will not turn out that "much additional security is derived from them. I shall therefore proceed to "the analysis, having only one more preliminary observation to make, namely, "that whatever I may feel it my duty to state, as far as relates to the pre- "vention of forgery, either as to the machinery and contrivance of the "American Artists, or as to the works of British Artists, combined in the "American Note, nothing must be understood as at all reflecting either upon "the general merit of the one or of the other, or indeed upon the beauty "of the Notes, but merely of their merits or usefulness as applied to the par- "ticular object before us—the *prevention of forgery*. I have, indeed, no hesi- "tation to state my admiration of the ingenuity and excellence of the Ameri- "can contrivances, as applicable to the extension of the fine arts, and of their "importance in the propagation and perpetuation of the works of the best

"Artists; at the same time that I attach no importance to them whatever "as to the prevention of the crime of forgery, and for the reasons which I "am now about to state, and, as I doubt not, to establish by actual ex- "amples."

Mr. Congreve then proceeds to predict that the American plan of a Bank Note gives no security against an absolute imitation in every particular; but actual experiment, by thirty years' employment of the system in this country renders his reasoning of little value, since Counterfeiters find far easier methods of effecting their purpose than any suggested in this analysis. The fact, however, that this work was written in advance of the actual employment of the system, gives a prophetic character to the language. If the same able writer could now behold this country flooded as it is with the very Bank Bills he condemned; and if he could again analyze the system, with the knowledge of the fact that "more then two thirds of our circulating Bank Notes are so fraudulently and sucessfully imitated that few persons are able to discriminate between the genuine and the original," he might defeat again, and effectually, a system of Bank Note Engraving which is so obviously liable to abuse.

CONGREVE'S ANALYSIS.

Congreve then begins the details of his enquiry, by examining the properties of the American plan; and for this purpose he caused imitations of the most difficult specimens of that plan, offered to the Bank of England, to be made by such *various* means, all of them different from those employed in the original, as he found practicable, for the purpose of estimating the real value of the securities proposed. The securities claimed for the American plan were stated by its inventors to be the following:

First.—The mixture of the copper-plate and wood-cut styles in the same Note.

Secondly.—Geometrical figures produced by an engine contrived on purpose.

Thirdly.—The introduction of a great quantity of extremely small writing in various parts of the Note .

Fourthly.—The multiplication of fac-similies on different parts of the plate.

Fifthly.—The introduction of the work of the best copper-plate Engravers.

Congreve after enumerating them, remarks that there is nothing in the idea of any of these securities that he had not heard of before. "Their "value consists merely in the particular mode of producing them in combina- "tion which the American Artists can claim. Thus the mixture of the black "line upon white, and the white line on black, is found in the bordering and "amount of the present Irish Note, both of which are printed, like the "American, from copper-plate.

"With respect to the first of these supposed securities—the mixture of "styles. This would amount to a high degree of protection, if, according to "our test, the forger were obliged to use the same means as the originator of "the Note. But this will be found not to be the case; for that which the "American Artists themselves perform by a very elaborate process of engrav- "ing upon steel-plates, transferring that impression to steel rollers, and again "to copper-plates, the forger, to whom speed is no object, can imitate by the "most ordinary means, as will be seen by the following examples:

"Thus, he may give the black line upon the white ground, which is the "genuine offspring of copper-plate printing; and the white line upon the "black ground, which, on the other hand, is the natural production of the "wood-cut, or surface printing, in most cases wholly by engraving on wood; "or, if any part of the work were too fine for imitation on wood, by mixing "the wood-cut with copper-plate—by which each of these difficulties en- "tirely vanishes in its own respective style; for there is no difficulty what- "ever in wood-engraving to produce the white line upon the black, nor the "black upon the white in the copper-plate, as shewn by the accompanying "examples, and the mode by which they were produced: which proves at all "events, in the first supposed security, namely, the mixture of styles, that "the machinery of the Americans is entirely useless, as far as relates to the "prevention of forgery.

"In fact, there are no less than four different methods by which these oppo- "site effects may be imitated without the aid of the transferring process of "the American machinery; and, indeed all these methods are more or less "in common use in the different branches of the art of printing.

"Thus, in the first place, they may, as above stated, in most cases be pro- "duced wholly on wood, and printed wholly from the surface.

"Secondly, they may be produced by a combination of the opposite "effects of copper-plate and wood-cut, at separate impressions, printed part "as surface—part as copper-plate.

"Thirdly, they may be produced by a mixture of copper-plate and ste- "reotype direct from copper-plate: those figures intended to be printed in "the white line being given by the stereotype; which would, by the most "simple operation, answer the purpose of the transferring process of the "American Artists.

"Fourthly, it may be done by a more easy, and consequently still more "fatal, evasion of the American plan than the preceding one—by engraving "the copper-plate line, that is to say, the black line upon pewter by the "mere impression from common copper-plate into the pewter in a common "vice. Some of the parts in the annexed imitations will be found to be "actually produced in this way.

"As to the second of these securities, viz. the geometrical figures, as they "are called, it is said that they can only be produced by an engine of new "and peculiar powers, invented by the American Artists. That this engine "may be very ingenious in its construction, I do not wish to deny; but I "must at the same time beg leave to assert, that all the work it will produce "may be copied without any engine at all; as may be seen by specimens of "the original engine work of the Americans, copied in wood-cut entirely by "hand, and in a very short time. So, also, the borders and engine work in "the last improved American specimens are all done by elaborate machinery "in the original; they are, nevertheless, imitated in plates —, —, —, etc. "wholly by hand, though they combine both the black and white line. "Indeed, the white line borders, some of which were to the commission as "inimitable, are simply ruled by a point, either on wood or copper, by a "waved rule. The generality of these figures, however, are not produced "by drawing, but merely by setting off an impression from the original on "the wood, the lines so set off being traced from the impression by the "graver, line for line; and may, therefore, be considered as fac-similies, which "could not fail to deceive in a circulated Bank Note.

"We now come to the third of the American securities, viz. the multipli- "cation of fac-similies in different parts of the plate.

"Of this principle we are told, that, by the American machinery, the work "of fifteen years' labor of a first-rate Artist—supposing every part of it en- "graved on the copper-plate in the ordinary way, may be put upon the plate "of a Bank Note in a few hours.

"It may be so! but this is no security, if it can be shown also that this "supposed work of fifteen years may be copied by the forger in a few days.

"If indeed the forger were under the necessity of multiplying these fac- "similies on the copper-plate itself, as the Americans are, to produce quan- "tity, then, it is true, he must either resort to machinery similar to that "employed by them, or he must engrave each of these fac-similies separa- "tely, which would unquestionably be a work of great labor as well as "difficulty, and afford all the security supposed.

"But it so happens that the forger, to whom, as we have already observed, "speed is no object, requires only to multiply his impressions *on the paper*, "*and* NOT ON THE COPPER; and consequently he wants only ONE *engraving* on "copper to print as many fac-similies on the forged Note at separate oper- "ations, as the Americans may think fit to place on the original at one "operation. The imitations of the American Notes, and the subjoined ex- "planation of the means by which they were produced, prove at once the "fallacy of this security, and indeed demonstrate that the imitation would "have been much more difficult, had all the heads been *different*, instead of "being fac-similies.

"There is another very simple way also of multiplying fac-similies, to print "at one single operation, viz. by stereotyping, from one engraving on cop- "per, as many figures as may be required in one plate.

"The next security to be considered is the introduction of a great quan- "tity of small writing in some of the American Notes. This security, while "it consists merely of the repetition of the same work, is much the same as "the last.

"It is merely the labor of engraving one of these pieces, and multiplying "them in different parts of the Note. But even supposing they were not "repetitions of the same work—work so small as this is, and on the small-

"ness depends all the difficulty and labor on which the American Artists "calculated—work, I say, so small as this, would soon become so indistinct "on a circulating Bank Note, that it would not require the forger to copy "one single letter of it, to give such an effect, as would, in a circulated "forged Note, bear comparison with a circulated genuine Note.

"Neither will the introduction of the work of the best Artists be found to "afford any greater security to the American Note, than either of the fore-"going expedients; for, in the first place, it requires only a passable imita-"tion to deceive the generality of mankind; and, in the next place, a very "second rate Artist can make a very good copy of the works of the best "Artists, though he would be quite incapable of originating these works "himself. In this country, also it must be remarked, that the art of copper-"plate engraving is so widely extended, that there are hundreds of Artists "who could make fair copies of the best of Heath's works. No security, "therefore, can depend on copper-plate engravings; for, unfortunately, great "numbers of these Artists are in the most reduced circumstances. Of this, "examples are given in all the plates, wherein the works of Heath and others "have been imitated, those imitations having been made in a very short "time, and in various ways, and by Artists not at all professing to belong "to the first class.

"It is evident, therefore, that all the difficulties which the American "Artists have thus introduced in their plan, are, as it were, *gratuitous*, and "PERFECTLY USELESS, as far as the *prevention of forgery is concerned;* though "the Notes are extremely beautiful, and the plan very ingenious. It must "also be admitted that the powers of perpetuation and perfect identity, and "the rapidity of their production are greatly to be admired; and no doubt "are extremely useful in the manufacture of Bank Notes, as far as quantity "is concerned to meet an extensive circulation; but still this does not "operate to check the forger at all, because it is not quantity he wants, nor "speed; and these points, therefore, will never lead him to encounter the "expense and difficulty of pursuing the American process. Even identity "itself, though it may seem very desirable, acts not as a real security, "because it is enough for the forger to produce a strong resemblance, and a "passable imitation. The merit of identity may, it is true, in particular "cases, with very minute inspection, and in Notes where the forger has

"neglected due precaution in defacing his Note if it has any weak points, "lead to detection, but it cannot be classed as a general security.

"It must be admitted, that none of these plans contain in them that pro- "perty which we have seen to be the only basis of security in paper cur- "rency—that by which the forger shall be compelled exactly to follow the "same process as the originator of the Bank Note: so *that whatever difficulty "really exists in the production of the original Note, shall equally attach "to him.*

"The fact is, that, notwithstanding the pains that are taken by the Ame- "rican Artists to put upon their plate, by the most elaborate processes, the "great variety of beautiful work that it contains—the effects of that plate, "after all, are nothing more than those of a common copper-plate, or a com- "mon wood-cut; printed by the ordinary process in black and white.!!

"That, in the production of the original of the American Note these "contrary styles are united on one plate by machinery, however ingenious "that machinery may be, means nothing as to the prevention of forgery; "because we have seen that the forger *can dispense with that plate altogether*, "and produce his imitations in *detached pieces of ordinary* workmanship at "once *on the paper*.

"The defect, therefore, in the American plan is the want of some *peculiar "property in the plate itself* which shall render THAT PLATE *in all cases indis- "pensable* in the *simultaneous production of the whole of the Note in one "impression:* and that such a property is attainable, I shall now proceed to "demonstrate—a demonstration which, while it confirms the accuracy of "the foregoing analysis, leads us to the attainment of the true system of se- "curity, and conducts us from the investigation of that which does not con- "stitute security to the developement of that which does.

"It must not, however, be understood that what I am now about to add "has originated in this analysis of the American Note. I was convinced of "the inefficiency of every plan, which was resolvable into the work of com- "mon copper-plate, or common wood-cut, long before I applied these prin- "ciples thus particularly to the American Note. I was previously convinced "that the great desideratum was to produce a plate, which, by the *peculiarity*

"*of its construction* and of the *effects produced by it;* could only be imitated "in the way in which it was produced: the application, however, subse- "quently made of these principles to the American Note, is, perhaps, one of "the best proofs that can be given of their correctness and efficacy."

Congreve now proceeds to give "A Detailed Description of the Plates, "shewing by What Means these Imitations of the American Notes have been "made and in What Times.

"The object of this article is to give a more detailed description of the "means employed in producing these imitations, than I thought it convenient "to enter into in the course of the foregoing Analysis; the train of reason- "ing and argument of which I was desirous of keeping as little encumbered "as possible by such details.

"When first I saw the original specimens of the American Notes, as one "of the Commissioners of Enquiry, such as those Notes were, previously to "the arrival of the American Artists themselves in this country, I conceived "that the only fair mode of investigating the quantum of security they "possessed, was to cause some of those parts, which seemed most out of the "common way, to be imitated; and for this purpose I selected some of them "which contained the mixture of the black line upon a white ground, with "the white line upon the black ground, worked up with machine engraving "produced by what they call their geometrical lathe; and as I knew that, in "surface printing from wooden blocks, the white line upon a black ground "contained no difficulty—while I was equally aware that the power of the "Engraver on wood was also very extensive, as to the production of the "black line upon a white ground—I applied to Mr, Branston, of Holloway, "as a well known Engraver of this description, and carried to him an Ame- "rican specimen of the word 'Ten,' Plate —, surrounded with three ovals of "very delicate engine work, on which the American Artists had laid great "stress, and which combined also the mixture of the white line upon black "and the black line upon white. Mr. Branston readily undertook the task "of imitation on wood, and in a very short time produced the imitations of "this 'Ten,' together with an imitation of the 'One,' on the same plate, the "latter of which he engraved in about two hours, copying most accurately, "by hand every part of these specimens, even the engine work, the delicacy "of which can not be denied, the figures being extremely complicated, and

"the lines very fine. Subsequently to this, in consequence to the American "Artists having stated that these were not the specimens they relied on, not "containing a sufficient proportion of the black line, and having pointed out "the figure with the head in the centre, which head is wholly in the black, "and that with the flowers and drapery, as being better specimens of their "plan; these figures were also imitated by Mr. Branston, as was also the "Eagle Vignette, Plate —, which seemed to have been considered by these "gentlemen as inimitable by block printing.

"These several parts of the original American Note having thus been "successfully imitated by such ordinary means, I own I considered it con- "clusive of the insecurity of the system as it was imported into this country; "because I considered it obvious, that if Mr. Branston could imitate every "part of these original Notes on detached pieces of wood, including the "vignette, as he has done, he could as easily have imitated the whole on one "single block; and if not, the forger could, at all events, combine on one "piece of paper these detached parts, so as to complete his forgery of the "whole Note at seperate impressions; or he might do it at one impression, "by locking up these detached pieces in a common printer's form.

"As, however, the American Artists were so much offended with me for "this opinion, and in consequence have said so much in their printed volume "and elsewhere, of the insufficiency of proofs drawn from the imitation of "detached pieces of their work, and as they have since combined the work "of the first-rate British Artists in their Notes—I determined, agreeable to "the desire expressed by them, to cause this same system by patch-work to "be applied to some of their best specimens of whole Notes, so combined— "shewing also, by a sort of supplementary plate to each Note, the imitations "in the detached parts, by which the forgery of the whole is completed.

"On this principle, therefore, I shall now proceed to describe the Note, "plate No. —. It is almost needless here to repeat that the American original "of this Note was produced by engraving the different parts on softened "steel plates, which being subsequently hardened, were pressed into softened "steel rollers, and these being subsequently hardened again, were pressed "into a copper-plate—the same copper-plate containing on its face all the "different impressions of these rollers.

"This Note, plate —, contains five fac-simile heads of a Homer, engraved "by Mr. Perkins the younger; four female heads, engraved by Col. Fairman, "two pieces of border produced by a geometrical lathe, as it is called; to "which is attributed, page 27 printed volume, something like the power of "free will, and a little of that perverseness which sometimes accompanies "the exercise of that power, inasmuch as it is stated that it is not to be made "to produce the same pattern twice; though I must confess there seems to "me no very great variety in what it does produce— every part of it, when "analysed, being solvable into the volutes of a certain number of lines, like "the twines and strands of a cable more or less twisted, and either drawn "out sraight or bent into coils. Inlaid in the borders thus produced are "eight fac-simile ovals, containing part of the Bank Charter, in a character "so small that it has the merit of being perfectly illegible, without the aid "of a high magnifying power.

"According to the estimate given of the time that this would take to be "produced or imitated in the ordinary way of engraving the whole on the "same copper, which is rather hastily assumed as the only way of imitating "it, in the absence of Mr. Perkin's transferring processes, a good Engraver, "by the account published in the American volume, would be three years "and five months in making this imitation; and indeed there are some parts, "such as the white line border, which it is stated to be physically impossible to "produce without the machine, and others, namely, the small writing, the "power of producing which is attributed to one person only, a Mr. Davis.

"Now it does so happen, that the whole of this plate was copied by Mr. "Branston, including the small writing, in seventeen days!—every part of it "except the small writing being produced by surface printing. Thus the "five Homer's heads were all produced by a succession of impressions from "one head, cut in wood (vide Plate —); nevertheless they are quite as "much fac-similes of each other as those produced by Mr. Perkin's transferr-"ing process; and what is still more extraordinary, nearly as much fac-"similes of the original head. In like manner the four female heads are "produced by similar repetitions from another wood-cut, also shewn singly "in the duplicate Plate —; the borders of the geometrical lathe, of the "impossibility of imitating which we are told in pages 4, 27, and 28, in the "American printed volume—these are imitated by ruling with a fine point

"on brass, and with an indented ruler, a series of lines made to intersect "each other by advancing and returning the ruler in a regular gradation, "and printed afterwards as surface, as shown in the duplicate plate. The "fine writing is engraved on copper, and afterwards printed into the vacant "spaces left in the border; the whole of this succession of impressions re- "quiring only half an hour to complete them, which is a rate of production "sufficiently rapid for the forger's purpose. But if it were not, it must here "be remarked, that all the different parts of the plate, thus created, except "the fine writing, is reducible into a single stereotype plate, to print from the "surface; so that those parts might be obtained by the forger at a single im- "pression, and that the small writing might be so stereotyped on one plate, "as to produce the four ovals in each border at a single impression, printed "as copper-plate. In fact, the charters in all the annexed plates are actually "printed from a stereotype of the original copper-plate, notwithstanding the "assertion contained in the printed volume of the American Artists, of the "impossibility of stereotyping the work contained in their Note. Thus the "time of production might be brought nearly to that of the original copper- "plate, if necessary for the forgers purpose; which however, it certainly is not.

"Now the comparison of the time of making an imitation of this Note "according to the American statement, and the time it actually took Mr. "Branston, are shewn in the following columns.

TIME AS STATED BY THE AMERICAN ARTISTS.	TIME EMPLOYED BY MR. BRANSTON.
"The five heads contain as much work as "could be done in three months.—Vide page 4 "of the American printed volume. 3 months.	"The wood-cut, from which the five heads in "the copy were printed occupied four days. 4 days
"The fine writing in the eight ovals, being "part of the Bank Charter, exceeds 20,000 "letters; and one of these ovals, or one-eighth of "the whole, required upwards of three weeks; "and if the whole had been done by hand, it "would have required much more than eight "times as long to do it, on account of the extreme "fatigue to the eyes in dwelling so long on such "exceeding fine work.—say however, 3 x 8=24, "equal twenty-four weeks, or six months. 6 months.	"The copper-plate, from which these 20,000 "letters are produced in the copy, took Mr. "Branston 6 days, subsequently stereotyped. 6 days.
"The work as engraved by machinery, that is "to say by the GEOMETRICAL LATHE, comes next	"The geometrical lathe border in the copper "took Mr. Branston's son a young man 18 years "of age, five days. 5 days.

"to be estimated. Without insisting FOR THE "PRESENT on the IMPOSSIBILITY of doing this "work with the graving tool, combined as it is "with other styles, we shall for the sake of ar- "gument, suppose that a distant sort of imitation "may be made, and with this supposition, all the "artists to whom the question has been proposed, "have declared that such attempt would, in order "to make any resemblance of the work at all, "occupy at least four-fold the time that any of "the other styles of engraving would do of the "same size. This work spreads over about half "the surface covered by the other kinds put to- "gether. Hence the time may be estimated at "double that of all the other engravings—say "thirty months. 30 months.

"The female heads by Col. Fairman are not "estimated, but allowing the same time as is as- "sumed for the Britannias in plate —., and four "of them may be reckoned at two months. 2 months.

"Total ..... 3 years 5 months.

"The wood-cut imitation of this head took Mr. "Branston two days. 2 days.

"Total ..... 17 days.

"The foregoing comparison speaks for itself, and shows without comment, "the degree in which the American Artists have overrated the security of "their plan. Indeed it is evident they were not aware of the state of the "arts in this country: their calculations might be very true in America, but "they certainly do not hold here.

"The facility of forging these Notes cannot be better elucidated than by "recapitulating the means required, viz. two small wood-cuts, one small strip "of brass border, and a small oval piece of copper, the whole of which might "be conveyed in the waistcoat pocket of the forger; as the separate impres- "sions given in the supplementary Plate sufficiently prove.

"If I were asked why, in the imitation of this Note, I have preferred "wood-cut to copper-plate, I should say—not because it is easier done, for "that is not the case, but, in the first place, because it proves that the Ame- "rican Note is open to the attack of the wood Engraver as well as to the "copper-plate Engraver, which latter no one doubts. The wood-cut is also "the most rapid mode of producing the work.

Mr. Congreve proceeds to imitate the productions of the American Artists, which they had claimed to be secure against forgery, giving the time employed, and the means used in minute detail. We very much regret that we cannot give the engraved illustrations of his book, as an examination of them adds two-fold force to his argument.

Congreve concludes as follows:

"After these statements, I can only repeat my observation, that the Ame-"rican Artists must be entirely ignorant of the state of the arts in this coun-"try. What indeed are we now to think of the assertion of page 6, "that "a Note on this plan might be made to contain as much work as the best Ar-"tists in the world would execute in *fifteen years?*" or even the less extra-"vagant one, at page 41, "that it would require *four* years continued labour "to make an imitation of such a Note, supposing it practicable at all." It is "true the gentlemen who give the latter opinion do not go quite so far as "the American Artists themselves: still is it credible that any work, at all "*intelligible* could be so spun out upon a surface of not more than twenty-"four square inches, when we have thus seen the *supposed* work of *five years* "imitated in *thirty-three days!!!*

"As to any peculiar power of *combining* the different works of different "hands, or of subsequently *varying* these combinations, given *by means of* "*the American machinery*, points on which much stress is laid in that article "of the printed volume, called 'Opinions and Remarks upon the means of "preventing Forgery,' it must be obvious to any one who will examine the "means by which the annexed imitations are produced, that the same extent "in the power of combination in the first instance, or of subsequent change "of combination, appertains to the system here practised, *without any ma-"chinery at all! With two or three more strips of copper-plate and wood-cut*, "in addition to those employed in the annexed plates, we could now imitate "*all* the *other* Notes in the printed volume of the American Artists, and the "form of the Note might be varied quite as readily as they can vary the ori-"ginals by their machinery; *or even more so*, because in any change of "combination they have new plates to create, whereas, we have only to vary "the printing of those in existence: so that I am indeed compelled to say, "every part of the arguments raised by the Americans and their friends, as "to the value and security of their plan, seems to be done away.

"I shall not, however, go into any further particulars; enough has been "said to prove the danger of giving or receiving decided opinions on exparte "evidence, even on subjects where the best information may be supposed to "exist. I have only to add that, if the extent of time and labour proposed "to be expended by the American Artists were in any way possible, the style "of work which would necessarily result would be wholly unfit for the object. "It requires a proof-impression and unsised India paper to make the fine "work in the American specimens at all clear: what, therefore, would be- "come of it if printed on sised Bank Note paper, and still more after it had "been in circulation a few days? The fact is that its indistinctness would be "such, that it would be easier to produce a general resemblance of one of "these Notes in a worn state, than of either of those here imitated. Beyond "a certain point, therfore, it is evident that fine copper-plate work would be "entirely labour lost.

"And in truth the forger would in all cases, where such work as the Ame- "rican is relied upon, aim his imitation at the Note in this defaced state, "and not in the highly finished and perfect state in which the American "specimens are exhibited. It is not intended to deny that such work must "be more perfect, coming from a single plate, than any imitation made by "separate impressions. It is certain, however, that the imitations here "given afford a most successful resemblance even as proofs, although this "was quite unnecessary, and a work of supererogation on my part; for had "they been much less perfect than they are, they would have been quite "sufficient to deceive the public in the shape of a circulated Bank Note.

"The real object in these imitations has been, not to see how perfect they "could be made, but to show in how short a time, and with what ordinary "means these laboured productions of the first-rate Artists, and of the most "complicated machinery, might be wholly imitated by hand, with quite suffi- "cient resemblance for the forger's purpose!

"Nor can it be denied, that, under the disguise of a worn Note, the forger's "purpose is still more easily accomplished than has been calculated upon "throughout these pages. The utmost exertions of labour and talent that "can be exercised in the mere styles of copper-plate and wood-cut in black "and white, even if the combinations were more difficult of evasion than

"they have been proved to be, would, under this disguise, avail but little; "and workmanship, far inferior, and much more rapid in its execution than "has here been employed, would be sufficient to destroy the value of any "security attempted on these principles.

"As to the completion of this Analysis of the American plan, all that I "have to regret is, that I have not the means of affording the public the op- "portunity of comparing the copies with the originals; but this the Ame- "rican Artists may remedy if they think fit; and I can only say, that if I "had the original plates, I would give them side by side, with the imitations, "even as proofs to show how near a resemblance has been made, in this state "even, by the ordinary means resorted to, and in the very short time em- "ployed. I would also publish both the one and the other, printed on Bank "Note paper, to shew how much any little difference that might exist be- "tween them, as proofs, is done away in the state in which they are actually "intended to be used. And lastly, I would produce them both, as Notes "after a few hours circulation, to prove that in this state no difference what- "ever could be traced. Thus the truth, and the whole truth, would be "brought forth; which is indeed the only object that I have in view, in pur- "suance of the public duty I have undertaken; that this is also the real object "of the American Artists, I hope and trust: it ought at all events so to be, "not only with them, but with every one who meddles with a subject, so "closely connected with the existence of crime, and the duration of human "suffering."

REMARKS ON CONGREVE'S WORK.

As we have before observed, the opinions of Congreve were uttered before the employment of the American system. They were formed on a critical and scientific analyzation of the plan. The engraved illustrations which embellish his book, bear the most convincing evidences of the correctness of his reasoning.

Perhaps we ought to mention that Congreve proposed a plan of his own, which also depended for security upon mechanical contrivance and ingenuity; and therefore it had no better claims to confidence than the one he denounced.

It is unnecessary, however, to occupy the reader's attention with any exploded theories. We will only remark that his plan for a Bank Note may now

be seen fully illustrated in the many colored illuminated titles and covers of our annuals and magazines. Such will be the result of all attempts to produce by mechanical ingenuity, a Bank Note difficult of imitation. Such attempts are, in our opinion, as chimerical as those of constructing perpetual motion.

The idea that one man can execute any thing either by machinery, or by hand, that another cannot imitate, is absurd.

There is a law which governs this matter with the unerring certainty of the law of gravitation. Let us acknowledge that law with honesty of purpose, and assign to ONE alone the power of accomplishing that which is inimitable by man.

Congreve's reasoning establishes conclusively the following important principles :—that any Bank Note constructed on the patch-work plan, can be successfully counterfeited by the most ordinary means ;—that the geometrical lathe-work possesses no security whatever against imitation,—and that a repetition of the same figure on the same Note assists rather than embarrasses the Counterfeiter.

Recent inventions, however, furnish the Counterfeiter with far easier methods than any suggested in Congreve's work : as for instance the employing wood-cuts to imitate the work of the geometrical lathe, as suggested by him. The Counterfeiter does not find this to be necessary, since the genuine work of the machine is in common use, and can be purchased for a mere trifle. The late invention of the electrotype process of multiplying engraved plates, furnishes the Counterfeiter with a more perfect method, than the employment of dies and transfer presses.

Another style of work has been applied to Bank Note Engraving in addition to those mentioned by Congreve, namely, that of Medallion Ruling, which resembles *bas relief*. A machine that will execute this work costs from seventy-five to one hundred dollars. Now, a child can, with a little practice, use the machine as readily as the most experienced Artist. The machine is exceedingly simple in its construction, and the work produced by one person is as perfect as that produced by another. If this style of work had been submitted to Congreve, he would have found far less difficulty in producing the identical figures desired, than he encountered in any of the other styles

of work. He would not have found it even necessary to evade the manner employed by the original Artists, in producing his imitations; in fact, it cannot be said that he would have produced imitations at all, if he employed the original machine, and produced original work.

The Counterfeiter's actually possess this machine and are no doubt much pleased to meet with this style of work on any Bank Bill which they desire to imitate.

While every branch of science has progressed wonderfully within the last thirty years, the art of Bank Note Engraving has remained stationary. It is true that each detached part of the Note has attained an extraordinary degree of exellence; but the system of constructing the Note remains substantially the same.

The question now very naturally occurs, why has not a Commission of Enquiry, similar to that created by the Bank of England, been appointed in this country also? The paper circulation of the United States is immensely larger than that of the Bank of England; and yet there has been a total indifference to the great question of the prevention of forgery. The Notes of the Bank of England are of large denomination and never have been less than ONE POUND. Our ONE DOLLAR Notes exceed by far, in number, the whole circulation of the Bank of England. With a thousand-fold greater cause for guarding against counterfeits than the Bank of England, no Commission of Enquiry has ever been made, nor any other systematic attempt to investigate the subject. Banks spring into existence, "like mushroms, in a night." Their beautiful looking Bills are thrown into circulation within a few days after, and are followed almost immediately with a flood of spurious issues in the shape of absolute counterfeits, or the more prevalent and dangerous alterations of denomination. When these spurious issues have become almost as numerous as the genuine Bills of the Bank, and when it is publicly announced that it is absolutely dangerous to take any Bill of the Institution, and when their Bills will not circulate, because it is almost impossible to "discriminate between the genuine and the false," the Bank will procure a new plate engraved in the same defective style, only to have the same farce re-enacted.

This system of Bank Note Engraving has been experimented upon for the last thirty years. Caveats have been filed in the Patent office, and patents

have been obtained for various methods of combination, all of which have proved utterly valueless. Nay, we confidently believe that every attempt to effect security against forgery has resulted in making that very business easy of accomplishment, and difficult of detection.

Comptrollers of States which have adopted the General Banking Law, when they have it in their power to revolutionize the system of Bank Note Engraving, only apply for information on this subject of the very persons whose interest it is to perpetuate the present system.

It will appear, in the course of this work, that the Comptroller of the State of New York adopted a variation of the present system which was so admirably adapted to favor the Counterfeiters' designs, that it would be difficult to devise one to suit their purposes better. The first Free Banking Law required a system of Engraving for its Notes, founded on the most correct principles to give the utmost security against forgery. But Bank Note Engravers alone were consulted, and they, as might have been expected, proposed a plan so simple in its arrangements, that however numerous the Banks might become, or extensive their circulation, the Engraving Companies already established would be able to execute all orders with "neatness and dispatch."

We shall have more to say on this subject in another place; our design being at present only to explain the reasons of the extraordinary neglect which has been displayed upon this important subject. The old adage has it that "What is everybody's business is nobody's." There has appeared no agitator of the question of security against forgery, consequently there have been no replies, and no investigations. The writer believes himself to be the first who has ever instituted the enquiry; and though the task is far from being agreeable, it is his desire and hope to effect a change in the entire system of constructing our Bank Notes;—a change from the weakest of all contrivances to prevent forgery, to one of as complete security against the most dangerous and prevailing forms of it, as it is possible to obtain in human workmanship.

IMITATING LATHE-WORK BY WOOD ENGRAVING.

In the work of Congreve, from which we have so liberally quoted, mention is frequently made of the ease with which the white line net-work of the

geometrical lathe can be imitated on wood. This lathe-work is employed on almost every Bank Bill in this country. Sometimes it appears in a strip across the end of the Note, as in Plate Eight, Note Two ; and more frequently in the shape of an oval, circle, or small end piece in which the denomination of the Note appears as represented in various parts of Plate Eight. In order to illustrate the effect of wood engraving as applied to the imitation of this work, we give the following specimen which was executed by hand, in a few hours, by Mr. J. W. Orr, the well known wood Engraver of this City.

One copy only of the above figure was engraved by Mr. Orr ; from which four electrotype copies were made by Mr. Ward. From these four electrotypes the above impressions were printed in an ordinary Letter Press, by Mr. J. D. Torrey.

The figure was copied from a genuine Bank Note originally executed by Messrs. Baldwin Adams & Co. the highly distinguished Bank Note Engravers of this City. We selected their lathe-work, because its openness is favourable to the Engravers process in imitating it. The finest quality of the work, however, can be imitated in the same manner, with a little more care and labor.

The process of producing the fac-simile engraving is simply this : the original Bill was immersed for a few minutes in a solution of caustic potash which destroyed the oil of the ink. It was then transferred on a block of wood by offsetting ; the design becoming as plain upon the wood as on the original Bill. The white line was then cut away with a graver, guided by the hand alone.

This was the manner in which Congreve proved, thirty-two years ago, that the work of the geometrical lathe possessed no security against forgery. The various parts of any Bank Note in this country have always been entirely open to the attacks of the Counterfeiter, and if any Commission of Enquiry

had been appointed to investigate the subject, the conclusions of Congreve would have been the inevitable result.

FIRST INTRODUCTION OF THE SYSTEM INTO THIS COUNTRY.

Notwithstanding the signal defeat of the American Artists in London, they returned to this country, and Perkins' stereotype plate obtained a monopoly of the Bank Note Engraving business, without any opposition, in the New England States.

The plan places more reliance on mechanical, than on artistic skill. One plate is made to print all the Bills of one denomination for many Banks, by merely changing plugs of steel, on which are engraved the name of the Bank, the State, the Town, etc. An error in the construction of the Note showed itself the moment that one of the Banks failed; for the worthless Bills are easily altered to represent those of good Banks. So also in the matter of counterfeiting; one good imitation plate can be used for the whole list of those Banks that use Perkins' invention. Though the contrivance therefore, may be economical to the Banks, because many can use the same general form; it is equally economical to the Counterfeiter, who can use his general plate to counterfeit all their Bills; and the inducement to make his counterfeit plate equal in workmanship the original, is in exact proportion to the number of Banks that employ the original general plate in the manufacture of their Bills.

This defective system still continues in use; the following is the opinion of one of the Counterfeit Detectors in regard to it—Dye's Bank Mirror and Illustrated Counterfeit Detector, published in Cincinnati, Ohio. It occurs in a letter from Boston, published in that valuable periodical, in March, 1852:

"A widely circulated and recently engraved counterfeit of the three dollar "general plate of the New England Bank Note Company, on the TREMONT "BANK, BOSTON, has lately made its appearance. These Bills were sent by "parties in Milwaukie, Cincinnati, and St. Louis, to this city for redemption, "and your market is, doubtless, ere this, flooded with them. About thirty "New England Banks use this plate, and the Counterfeiters of it can alter "from one Bank to another at their convenience. Too much caution cannot

"be used in taking Bills of this plate, and those persons not well acquainted "with Eastern money should refuse all those offered by strangers.

"The following Banks still use the general plate of the denomination of "five dollars, so recently counterfeited:—Bank of Cumberland, Maine; "Askuelot Bank and New Ipswich Bank, New Hampshire; Bank of Mont-"pelier, Vermont; Leicester, Blackstone at Uxbridge, Quinsigamond, "Beverly, and Union Bank of Weymouth and Braintree, Massachusetts; "Centerville Village, Warwick, Rhode Island Central, New England Pacific, "and Rail Road Bank, Rhode Island. If there are any of the $5 notes of the "above named Banks in circulation in your region, I would advise the holder "to *send them home for redemption*, and thereby make it for the interest of the "Banks, who persist in using this plate, to adopt a new one."

The following are specimens of general counterfeit plates, which are now in extensive use. We are enabled to introduce them into our work, through the politeness of Messrs. Thompson and Lee, the Editor and Publisher, respectively, of that very able and valuable work, the Bank Note and Commercial Reporter, to whose fidelity and zeal we believe the public has been greatly indebted for the detection and exposure of many of the most adroit counterfeits in the country. We also add the remarks of the Editor on each of these plates, as originally published.

THE COUNTERFEITED PLATE. No. 1.

"The following Banks have Bills in circulation of the $3 general plate:

"MASSACHUSETTS.—Tremont Bank, Leicester, Columbian, Central, Beverly, Northampton,

"Quinsigamond, Neponset, Blackstone, (Uxbridge,) Millbury, Union Bank of Weymouth and "Braintree.

"VERMONT.—Bank of Orleans, Bank of Montpelier.

"NEW HAMPSHIRE.—Lancaster Bank, Manchester, Carroll County, Warren, Mechanics and "Traders.

"MAINE.—Medomak, Brunswick, Sagadahock."

THE COUNTERFEITED PLATE. No. 2.

"The great number of well executed Counterfeits of this GENERAL PLATE has induced us to "incur the expense of giving the above fac-simile. The counterfeits first appeared on the CLARE- "MONT BANK of New Hampshire, and a large number of them passed undetected through the hands "of the best judges. Our subscribers cannot do better than refuse all notes corresponding with the "above, without reference to the name of the Bank, or denomination of the note. All the Banks "using it as a genuine will doubtless get new plates.

"The following Banks, we believe, still use the plate corresponding with the COUNTERFEITED "PLATE, No. 2.

"MASSACHUSETTS.—Union Bank of Weymouth and Braintree, Blackstone Bank, Uxbridge, "Quinsigamond Bank.

"RHODE ISLAND.—Railroad Bank, Village Bank.

"NEW HAMPSHIRE.—New Ipswich Bank, Askuelot Bank.

"VERMONT.—Montpelier Bank.

"MAINE.—Bank of Cumberland.

"These are both what are termed GENERAL PLATES—that is, they are applicable to the use of "different Banks—the name of the Bank and its location being the only alteration necessary. The "$ 5 counterfeit plate is a most capital imitation of the genuine. The $3, however, is not so well done: "and yet they are both done in such a style as to have been taken by good judges, and many persons "are unable to distinguish the difference, having the counterfeit and genuine side by side. The

"most of the Banks which have these plates in use, have decided, we believe, to issue new designs, "so the better course for those not able to distinguish between the good and bad is to REFUSE ALL "NOTES RESEMBLING THE ABOVE."

We may remark in addition, that when the counterfeit Five first made its appearance, more than five thousand dollars passed through the Banks before the fraud was discovered.

It will be observed that the oval denomination FIVE, is repeated four times; but the counterfeiter need only engrave it once, and print it four times on the Bill. He probably obtained the various parts of the plate, at different times, and places, of either the original Bank Note Engravers themselves, or of equally as good Artists; composed them together—and produced an electrotype copy, in one copper-plate. The titles of the Banks would be fitted in the plate, so as to be changed at pleasure, in the same manner as practised by the original Engravers.

THE ELECTROTYPE PROCESS.

This process has been in operation for the last ten years; and it is now generally known and practised. A full description may be found in the works of Smee and others.

By this process Silver, Gold, and Copper, after being obtained in solution, are deposited again in a solid form upon any metalic surface. Thus a copper medal may be plated with *Silver or Gold* to any required thickness. Electroplating is a business now carried on to a very great extent.

There have been, very lately, many notices in the newspapers of counterfeit gold pieces which seem to be perfect impressions of the original dies; yet they are mere shells of good gold with base metal inclosed in the centre. The Director of the Mint, we learn, was unable to pronounce an opinion on the genuineness of one of these counterfeit coins, until he had cut it entirely open; neither was he able to give any satisfactory theory how it was made. Now we think a thorough knowledge of the electrotype process will satisfy any one that all metalic substances, as coin or medals can be duplicated, and imitated so perfectly that it would be very difficult to distinguish between them. For instance a Five Dollar Gold Piece may be placed in a solution of copper, and, by means of a Galvanic Battery, the copper may be deposited upon the gold piece to any required thickness. It must be very obvious that

if the copper is sawed in two parts, the gold piece may be taken out, leaving a perfect matrix in solid copper. Now place the matrix in a solution of gold, and by the same process, deposit the gold to any required thickness. Thus a perfect copy of each side of the gold piece will be obtained, which may be soldered very nicely together, preserving even the milled edge, filling the centre with base metal, and producing a counterfeit coin that would stand the test of critical examination. This, doubtless, is the mode in which these wonderful counterfeit gold pieces were made. But this is a digression. Counterfeit coins are one thing, and counterfeit Bank Bills another.

We will now proceed to show how copper-plates are multiplied.

The copper-plate being immersed in a solution of sulphate of copper, a proper application of a galvanic battery will cause a deposit of pure copper to be made upon the engraved plate. Thus a mould is obtained. This mould is placed in the solution, and a duplicate copper-plate is the result. The thickness of the deposit is determined by the time occupied, and by the intensity of the galvanic battery employed.

The actual cost of the whole apparatus capable of making many duplicates of a copper-plate the size of a Bank Bill, need not exceed five dollars.

The following is a practical illustration of the subject.

PORTRAIT OF JACOB PERKINS.

On plate Ten; Figure Ten, is a portrait of JACOB PERKINS the inventor of the method of hardening steel dies, and transferring engravings from one piece of steel to another. This portrait was engraved by the writer for the New-England Bank Note Company, in the year 1834. Being desirous of using it to embellish this work, we applied for a copy on copper, or steel, or an impression on a cylinder; but the company declined to furnish a transfer on steel, or to part with a steel cylinder "at any price;" and informed us that "copper transfers were furnished at ten dollars each." The effect of the restriction is, only to prevent Bank Note Engravers from obtaining duplicates of each others' dies, on steel cylinders; but not to prevent counterfeiting. Where the original Artists use a Transfer Press and dies, to multiply engravings on the plate, the Counterfeiter can use one plate, and print it several times on the same Bill; thus producing the same effect, by a slower

process. Besides, when a Counterfeiter obtains an engraved vignette, on a copper-plate, he can multiply that plate more perfectly by the electrotype process, than can the original Bank Note Engraver by means of his Transfer Press. A proof of this is seen in the portrait of Mr. Perkins. The copper-plate which was very kindly furnished us, is not used at all, to print the impression here shewn, but is preserved as perfect as ever. We could produce any number of copper-plates from it for five dollars each; though as a matter of courtesy, we would not, unlicensed, take advantage of the means we possess. We will add however, that this duplicate electrotype plate of the portrait of Mr. Perkins, was made by Mr. J. E. Ward of New-York, a practical workman in this branch of business; for which he charged only one dollar and fifty cents.

It must now be obvious that a Counterfeiter may collect the copper-plates which the Bank Note Engravers have, from time to time, engraved for checks, drafts, bills of exchange, certificates of stock, medicine labels etc. and obtain electrotype copies of the various vignettes upon them; and, after properly filing and fitting the plates thus produced, may compose copper Bank plates about as readily as printers can set up a form in type. He can likewise employ good Engravers to execute the various parts for cards, labels, etc. and thus procure, piece by piece, a counterfeit plate, which will be equal in workmanship to the original, without being able to engrave a single portion himself.

It must be obvious that a picture or device of any kind ought not to be used more than once on a Bank Note; because, if it is used twice, the temptation to counterfeit it is exactly doubled. It matters not whether it be the lathe-work oval denomination, the medal head, the vignette, or any other portion of a Bank Note—thus demonstrating at once the uselessness of the Transfer Press, the Geometrical Lathe, and all other machinery, and the employment of dies in any shape or form.

Engravers who already own a large stock of Bank Note dies, may endeavor to blend them into new forms, in the hope of obviating these difficulties; but if they are not permitted to use a design, or vignette, more than once, there will be no economy in using dies, consequently they would soon go out of use in manufacturing Bank Bills, If we have proved that all contrivances to multiply engravings on Bank Notes speedily, result in their being easily

and speedily counterfeited, the private interests of individuals ought not to be consulted, in opposition to the public good.

THE FIRST NOTES OF THE FREE BANKS.

When the General Banking Law was first passed in the state of New-York, an occasion presented itself for enquiry into this matter; but no Committees were appointed and no investigation made. A plan was selected which could hardly have been more favorable to Counterfeiters, if they had been invited to suggest one to suit their purposes. It will be remembered that at first, the forms of all the ONES, of all the Banks were alike, (except of course, the lettering;) all the TWOS alike, and so on through all the required denominations. Thus *one set of dies* could be used *for all the Bank Note Engraving in the State*; and as there were only one set of dies, so there could be only one set of Engravers, or owners of those dies. Thus the worst feature of Perkins' stereotype plate was perpetuated with even less work on the original plate, and consequently, less work for the Counterfeiter to imitate. The Comptroller contracted with one Bank Note Firm to engrave and print all the Bills of the denomination ONE; with another, all the THREES; with another, all the TWOS, FIVES, TENS, TWENTYS, FIVE HUNDREDS, AND THOUSANDS; and with another, all the FIFTYS and ONE HUNDREDS. Thus, instead of inviting essays on the most secure method of engraving to *prevent* forgery, the very style was selected without opposition, which had been pronounced "utterly worthless" by the Bank of England, in 1820, and which had proved *worse* than worthless by actual experiment in the New England States. Bank plates were stamped by the score, at the rate of five hundred dollars each, only one set of dies being used for the purpose. So simple were the general forms of the Notes, that one man could transfer a steel plate of four Notes, except the letters, in forty minutes, and yet the Counterfeiter could "beat that time;" because when he had obtained *one plate* of the general form, he could *print that plate by itself;* the plate containing the lettering would be subsequently engraved and printed by itself. A reference to Plate Nine will illustrate this process.

FIGURE FIRST shows the general form of a Note printed by itself.

FIGURE SECOND—the lettering portion, engraved and printed by itself.

FIGURE THIRD—the two combined to produce a Bank Note.

FIGURE FOURTH—the lettering portion of another Bank Note ready for use.

Thus it will be observed that Counterfeiters did not occupy even forty minutes in preparing their general form for the various Banks, after they had once obtained it; and they came in for a rich harvest, flooding the country with spurious issues. This plan was soon abandoned, and the business of engraving thrown open again to all the variety admissible by the patch-work style. One vignette only, called the Comptroller's die, or seal, is still stamped on all the Bills of whatever denomination. In consequence of this repetition, both the Engraver and the Counterfeiter, have less work to perform; for, though the Engraver has this die always ready to stamp into his plate, the Counterfeiter will have his plate always ready to print on any Bill. The Counterfeiter will probably take extraordinary pains to have this die better executed than any other portion of his work Thus SECURITY TO THE PUBLIC against forgery, is disregarded; for what purpose, we leave open for consideration and reflection.

THE COUNTERFEITER'S MODES OF FRAUD.

The American system of engraving Bank Notes, gives facilities to the following modes of fraud:

FIRST. COUNTERFEITING, which is an attempted imitation in every particular of the genuine, and can generally be detected by inferiority of engraving.

The facilities of the Counterfeiter consist in being able to obtain a well executed vignette from one Engraver, a denomination die from another, the title of the Bank from a third, and so on piece by piece, until he has acquired all the materials, executed in the very best style, which are needed in the execution of his counterfeit plate.

We have seen counterfeit Bills so well executed, that we pronounced them genuine, and were only undeceived by a close comparison with proof impressions from the original plates, in the hands of the Engravers. No Artist capable of such workmanship, could, knowingly lend his talents to such a purpose, and we are firmly convinced that Counterfeiters resort to the above trick to obtain their plates. Every patch-work Bill in the country is open

to this attack; and Engravers though constantly watchful, may still be employed by designing knaves without suspecting their ulterior object.

Thus Counterfeiters can obtain the original dies, or, at any rate, the best copies of them, that our best Engravers are able to execute.

SECOND.—ALTERATIONS, effected in the titles of Banks, by erasing the name of a broken Bank, and stamping in the name of a solvent one. The name of the town and state are changed in the same manner.

Thus "The Farmers Bank, Mich." (Michigan,) is made to read, "The Farmers Bank, Mass." (Massachusetts,) by substituting for I C H the letters A S S ! !

The Counterfeiter can tear off the corners of TEN DOLLAR Notes, paste them over ONES—and pass the ONES for TENS, and the multilated TENS as well as ever. He can procure a copper-plate denomination like those seen on PLATE FOUR, of TEN, TWENTY, FIFTY, or ONE HUNDRED, under some ingenious pretence—print impressions on thin paper, procure ONE DOLLAR Notes by the quantity, and enter into a wholesale business of fraud, after the fashion described in the following extract from the Boston Atlas, of June 22, 1847:

"Counterfeits.—A remittance was received yesterday at the Suffolk Bank "from the Bank of Burlington. Vt. of $900. There were four Bills of $100 "each, and two of $50 each, of the Shoe and Leather Dealers' Bank, Boston, "making $500. Then there were eight Bills of $50 each, of the Massachu- "setts Bank, Boston. All of these Bills had been *altered from one* dollar Bills "of the respective Banks. The alterations are so well done, that ninety nine "persons out of every hundred would not detect the cheat.

"The loss to the party who made the remittance, is $886. We hope that "the scoundrels who are flooding the country with spurious Notes, may soon "be detected."

The following statement in reference to this subject, appears as a standing notice in every number of that excellent periodical, Thompson's Reporter:

"Our subscribers cannot too closely scrutinize the larger Bills passing "through their hands, as every genuine Note offers to the adept in this

"system, a subject for practising his art, and many of the faculty do it to a "nicety scarcely to be detected. It is done by pasting the figures 3, 5, 10, etc., "over 1's or 2's, and the words expressing the original value of the Bill, such "as *One*, *Two*, &c., are defaced (or sometimes erased by the aid of acids,) and "the fictitious value substituted. These are frauds we do not pretend to "keep the run of, as no genuine Bill is exempt from its practice."

Thus we have the opinion of experienced men, who make this matter a constant study, that every genuine Bank Note in the country may be easily altered from a low, to a higher denomination. Under such circumstances, it must be confessed, that there is little encouragement for Banks to call in their issues, and procure new plates, engraved in a manner so utterly deficient in the very qualities, which, of all others they should possess. This deficiency is susceptible of certain and effectual remedy, as we shall eventually prove.

Third.—Spurious Notes. Another very common and audacious species of counterfeiting consists in the issue of Bills which are not imitations of any genuine Bills in particular, but made to bear a general resemblance to all Bank Notes, and purporting to be the issue of some solvent Bank. The Counterfeiter secures his impunity in this case from the perfect confusion of the detached figures and pictures which are used in our Notes. The best judges may be thus imposed upon: for no man in the business community presumes to keep constantly at hand a sample of all the Bank Notes in the country, or to know what particular vignettes are on any one of them.

Judgment is passed upon the general appearance alone. The Counterfeiter, therefore, does not find it necessary to imitate the precise vignette of the Bill he counterfeits. With the great majority of business men, it will escape detection if it be a Vulcan, a Venus, a Ship, a Farmer, a Steam Boat, or a Rail Road, well engraved. A striking instance of this species of fraud was recently announced in the St. Louis Republican, in these words:

"An extensive system of fraud is at this time carried on in counterfeit "Notes of the Canal Bank, New Orleans, of the denomination of $100. "A few days ago, we noticed a counterfeit upon this Bank, and we now have "information that the rogues have so altered their issues as to vary them "from the description we then gave. The principal in this State, and who "has been very successful in giving them circulation, is a fellow who pro-

"fesses to be a southern planter, purchasing negroes for his plantation. "Under this pretence, he has succeeded in passing several hundred dollars "on steamboats and hotel-keepers on the Missouri, and subsequently "succeeded in purchasing three or four negroes with this kind of money. "One gentleman was in the city yesterday, with $800, which he had received "in payment for a negro. The Bank in question has no plate with any such "vignette."

It is not at all unlikely that this very plate is still used to perpetrate frauds on other Banks; unless it is worn out in this service.

It may indeed, have been the plate actually used to print ONE HUNDRED DOLLAR Notes on the forty-one branches of the State Bank of Ohio, which passed over the counters of Brokers, Bankers, and Merchants, in Cincinnati to a very large amount, before it was discovered that the Bank *had issued no Bills of a higher denomination than* FIFTY DOLLARS!

FOURTH.—MULTIPLYING NOTES. Another device of the Counterfeiter extensively practised, is that of multiplying Notes by cutting them into pieces, and patching them together, in such a way that four good Bills shall make five shorter ones. In the old system of engraving, almost the only method of fraud known, or practised, was that of counterfeiting; but at present, frauds in spurious and, altered Notes, are far more frequent. A recent instance noticed at large in the Mobile Advertiser, is the following:

"A. W. Marsh brought a suit in the circuit court of Alabama, to recover "from the Bank of Mobile, the value of one of its Twenty Dollar mu- "tilated Bills, which had come into his possession in the regular course of his "business.

"The Bill was composed of two parts, pasted together, which were less in "length by seven eights, than the original. The name of the Cashier was in "full on one part of the Bill, and the name of the President, with the excep- "tion of his initials, on the other part. It was conceded that the owner "received it in due course of trade, and when exhibited in Court, in the same "condition as when it came into his hands. The teller of the Bank testifies "that at the time the Bill was presented to the Bank, several Bills of a like "character had also been offered, and that the Bank, in paying them, had

"been in the habit of deducting from them in proportion as their value was "decreased by curtailment. The witness exhibited six cut Notes of the "Bank, and explained how the seventh was made out of that number, and "that it was his belief that the Bill in question was cut with a fraudulent "design upon the Bank. The Court in accordance with the above testimony, "ruled that the owner was not entitled to anything—in other words, the "Bill was valueless."

COUNTERFEIT PLATES OF THE ORIGINAL ENGRAVERS.

"The climax of audacity and success in counterfeiting is reached, when the Counterfeiter succeeds in obtaining his plates from Bank Note Engravers themselves. This is done not unfrequently, and without the possibility of avoiding it under the present system.

We will give the following verification of this statement, without reflecting upon the well known Establishment alluded to.

The same fraud might be practiced upon any house, and must be inevitable whenever the plates are allowed to go out of the immediate possession of the Engraver. We copy from the Bankers Magazine; Oct., 1849:

"COUNTERFEIT TREASURY NOTES.

"The papers recently have contained notices of a spurious FIVE HUNDRED "DOLLAR United States Treasury Note, being passed at our office, so well "executed as to escape the scrutiny of those familiar with the genuine. "We deemed this fraud as a very serious one in its consequences—particu-"larly at the West—and in the distant portions of our territory, where "United States Treasury Notes are much sought for as a remittance, and "as an investment for temporary purposes; and where, necessarily, the "opportunity of detection is much less than on the Atlantic coast. In fact, "it will be seen by the following letter from the Treasury Department at "Washington, that they were evidently intended exclusively for those "regions.

"The Note above alluded to, is the first that we have heard of in this "quarter. The counterfeiting upon them hitherto has been confined to a

"very poor imitation of the FIFTY DOLLAR, AND ONE HUNDRED DOLLAR "PLATES.

"The following letter from R. H. Gillet, Esqr., Solicitor of the Treasury, "will give all the facts in possession of the government, in relation to this "attempt; and as the indefatigable Solicitor, Mr. Gillet, has very obligingly "given us the result of his investigations in a letter—we prefer to give it "to our readers in his own words.

"OFFICE OF THE SOLICITOR OF THE TREASURY,
"17 August, 1849.

"SIR—Yours of the 15th, covering Miles and Co's Bank Note List, and what purports to be a "Treasury Note, is received.

"Although my signature as Register, and of 'M. Selden', Treasurer, are both such good imita- "tions as might deceive either of us, the Note is in the whole a counterfeit. There never has been a "Treasury Note plate like it, in the ornamental part. The history of this counterfeit is substantially "this: A person representing himself to be authorized by a Mining Company in Illinois, or some- "where West, called at the office of Rawdon, Wright, Hatch, and Co., in New Orleans, and requested "their foreman there, to engrave and print a Note for 'The Eagle Mining Company.'

"He selected the devices which he preferred and the work was done. After a portion of the "printing was completed, he called and paid for the engraving, and printing, though only a portion of "the latter was finished, pretending to some necessity that prevented his waiting for the whole work. "The plate was taken to Cincinnati, where an old Counterfeiter took out the words 'Eagle Mining "Company,' and inserted 'The United States,' which made the body of it precisely like a Treasury "Note. The words 'Secretary' and 'President' were changed to 'Register' and 'Treasurer of the "United States'. The words 'Receivable in payment of all public dues', were added around the "figures '500' at the top. The words 'Countersigned' and 'Washington,' at the bottom, and 'One "year' in the centre, were also added. Through the agency of this office, the plate on which the "Note you sent me was printed, was secured a year or more since, with numerous impressions from "it, and with one from the original plate, which are now before me. There is no Treasury Note "resembling this in any thing except in the form of undertaking. The figures in red ink are much "larger than in the genuine. Except on an old FIVE THOUSAND DOLLAR Note, no one has had the "bald Eagle on it. In that, the back ground is entirely different, having no cars in the distance, nor "canal nor lock, but numerous ships, etc. The figures $500 on this Note are smaller than the genuine "one, being the same size as on Bank Notes. So far as I remember, every Treasury Note states on "its face the date of the loan, and when payable and fundable. This is so, I know, in the last loans; "nothing of the kind appears on this Note. I think I ought to state, that no blame can be attached "to the person who made the original plate. Nothing appeared calculated to arouse his suspicions. "I have seen his original correspondence with his employers which passed at the time, in which he "gave a full and satisfactory account of his doing the work, the price etc."

Now, as the original Treasury Notes were executed by the same firm that engraved the principle vignettes on the spurious issues, the best judges of

engraving would be the most readily deceived. When we know likewise, that the Counterfeiter can cut up the plates, and make Bank Bills of smaller size, such as Banks generally use, it becomes apparent that those genuine vignettes may be used in a great number of frauds. Then too, as copies of the plates themselves can be multiplied more perfectly by the Electrotype process, than by that of the Transfer Press of the Artists, it is plain, that they might endure as long as the patch-work system of constructing Bank Bills continues.

A like fraud on the Planters' Bank, of Tennessee, is noticed, as follows, in Thompson's Reporter:

> "10s, 20s, 50s, and 100s, genuine engraving of "Rawdon, Wright, & Hatch, obtained by fraud—they "read, 'pay to the bearer on demand,' the genuine read, "'pay to — or bearer on demand.'"

A MULTITUDE OF FRAUDS BY ONE PLATE.

The extent to which frauds may be perpetrated by the use of a single plate, almost exceeds belief. A stringent caution like the following, from Thompson's Reporter, is but a type of a not unfrequent class of detective notices:

"Refuse all Notes corresponding with the following description, no matter "of what Bank or denomination:

"Centre vignette, a large sheaf of grain, with plough and other agricul- "tural emblems lying around, canal, railcars, houses, etc. in distance—each "side of vignette is a large die containing a figure 20, one of which is on "the right end, with a small eagle and double XX below—on the left lower "corner is a large full length female feeding an eagle from a goblet, and on "the upper a double XX.

"This is another of the broken Michigan wild cat plates, and has thus far "appeared on the following Banks: Farmers' Bank and Stark Bank, Vt. "Farmers' Bank, Troy. Farmers' and Mechanics' Bank, Rochester. Pine "Plains' Bank, N. Y. Burlington County Bank, N. J. Bank of Delaware Co. "Farmers' Bank, Lancaster, Penn.

"We have heretofore described a number of Notes which are likely to be "altered in a similar manner. Our subscribers would do well to remember

"their description, as it is impossible for us to anticipate their various altera-
"tions. The best we can do is to describe the Notes, and leave our subscribers
"to identify them in their different disguises."

But a short time after this, the same vigilant journal, alarmed at the facility and frequency of this species of counterfeiting, presented its readers with the following fac-simile of another spurious plate, which, as one of a series, was entitled No. 3. How many more of the kind the editor will find it necessary to indicate we know not; though we have a strong suspicion that if he intends to give a complete list he will either become wearied with the task, or furnish us with an immense number of embellishments.

The editor of the Reporter says:

"The above is a faithful imitation of a dangerous affair now going the rounds of the Banks, as "may be seen from the number it has thus far appeared on. It once belonged to a Michigan Bank, "long since, however, exploded, and has recently been altered to the following good Banks:—

Village Bank, Massachusetts.
Smithfield Lime Rock Bank. R. I.
Farm. & Mechanics' Bank, Hartford, Ct.
Farm. & Mechanics' Bank, Rahway, N. J.
Farm. & Mechanics' Bank, N. Brunswick.
Farm. & Mechanics' Bank, Easton, Pa.
Farm. & Mechanics' Bank, Frederick, Maryland.

"The industry of the rascals in altering these Notes from one Bank to another, and their beau-
"tiful appearance, render them extremely dangerous, and we have therefore adopted the above
"method to protect our subscribers against them for the future. Paste the above up, and take

"NO NOTES LIKE IT, NO MATTER OF WHAT BANK OR WHAT DENOMINATION THEY MAY BE. "There is no good Bank that we know having a Note like it."

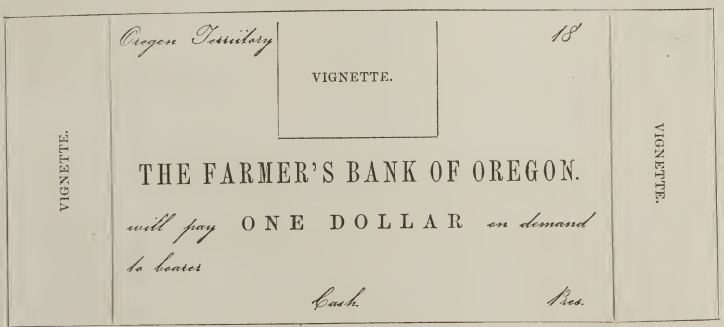
It is altogether probable that the plate used by the Counterfeiter is an original production of the Bank Note Engravers; but of this we cannot positively determine without an inspection of one of the spurious Bills. Whether it is so or not, is a matter of little importance.

STRATAGEMS OF COUNTERFEITERS TO OBTAIN GENUINE PLATES.

In August 1851, a stranger of entirely respectable appearance, presented himself at the office of the writer, with an order for a steel Bank plate of four Notes. He represented himself to be a man of capital residing at Cincinnati, and was about to establish a Banking Institution in Oregon.

After examining our specimens, enquiring prices, and particularly remarking that it was quite immaterial what designs were used, he selected the vignettes etc., which he desired to have transferred into a plate of four Notes, of the denominations ONE, THREE, FIVE and TEN respectively. He also suggested that the form should be changed, if, thereby, the work could be done more expeditiously, or the Notes made more attractive and beautiful.

The lettering was to have been as follows:



On being asked for references, he replied that he was a stranger here, but had transacted business some years previously with Mr. —— adding, "you

ask I presume to assure yourself that I am responsible; I can pay the amount in advance if you require it;" at the same time displaying a well stocked wallet, and presenting a One Hundred dollar City Bill, which he desired placed to his credit. After his departure we called on the gentleman, whose name he had mentioned, and were recommended to execute the work. Not however feeling sufficiently authorized, we consulted Mr. Thompson, the acute and vigilant Editor of the Reporter, who pronounced the design of the gentleman to be an attempt at fraud, and advised us to execute the work, receive our pay, and leave the result to his (Mr. Thompson's) management, in laying the matter before the authorities and causing the gentleman's arrest. But having a less favorable opinion of the police officers of New York, than we could possibly have of the stranger, whatever his character might be; we declined having anything to do, either with them, or him; and though we could have made three hundred dollars, for twelve hours labor; we returned the money already advanced, when the gentleman next made his appearance; choosing rather to appear too fastidious, than too eager for a profitable speculation.

The gentleman, however, it will appear, was not to be thus easily disappointed. He obtained his Oregon plate elsewhere, and, was subsequently arrested in Cincinnati for counterfeiting. Being acquitted on his examination, he left for parts unknown, with the plate in his possession; the lettering of which will probably be altered to run through the whole list of Farmer's Banks in the United States. The plate being of steel, and consequently very durable, it will no doubt prove a good investment for the enterprising capitalist; and being also good engraving, and having upon it the very work of men now engaged in making dies for Bank Note Engraving Establishments, the Bills may possibly pass over the counters of Merchants, Brokers, and even Banks themselves.

We now learn that this man has been for many years a noted character at the West, a frequent inmate of the State prison.

EXPLOITS OF BROCKWAY.

The most ingenious counterfeits ever issued, probably, were those of the celebrated Brockway, of New Haven, whose success so strikingly illustrates

the folly of a system depending for its security upon secresy, as to be specially deserving the study of all interested in the subject.

Bank directors are often misguided in assuming to be more honest than those in their employ. There are as trustworthy men among the poor, as there can be among the rich; and though the following narrative reveals the fraud of a Bank Note printer, there are plenty of offsets among defaulting and absconding officers of Banking Institutions.

Brockway was a journeyman plate printer, who was watched constantly by a Bank director, while employed in the business of printing Bills. The director on duty over him was sure that he received back the plate from Brockway, together with the full amount of paper; and that the printer could not possibly have "pulled" a single impression besides. Such being the case, it becomes very interesting to know, in what manner he succeeded in obtaining on three different, and successive occasions, fac-similies of the plates themselves, compelling the Bank to call in its circulation and to have new plates engraved.

How far the presence of the suspicious director operated on Brockway to induce him, at first, perhaps, merely for the joke, to satisfy himself that strict surveilance was not an infalible protection, we do not know; yet, we can see that a man who is treated like a thief, would be more likely to prove himself one, in the majority of cases. If the Bank had placed the plate and paper in the hands of the responsible proprietor of the establishment; he would have felt that his own honor was at stake, and his watchfullness might have saved the Institution and the public from loss, and even Brockway himself from crime. But, as the Bank director took upon himself the entire responsibility, the proprietor of the Establishment must be pronounced entirely free from blame; and in the event of any suspicion falling upon Brockway, the first witness he would require of his innocence, would of course, be the director himself.

The following is the story partially related in the Journal of Commerce Nov. 5. 1849:

"About two years ago, a batch of counterfeited Bills, on the New Haven "Bank, Conn., (TENS, FIVES, and TWOS,) made their appearance, which

"created much astonishment by the accuracy with which they were engraved, "and the skill with which the names, etc., were filled in with the pen. No "trace, however, could be obtained of the Counterfeiters, and the affair at "length passed off and was partially forgotten. Only about FIFTEEN HUNDRED "DOLLARS of this emission were ever discovered by the Bank.

"About one year ago, the five and ten dollar Bills of the New Haven "County Bank, at New Haven, were counterfeited with the same mystery as "to the engraving, and the same extraordinary skill in the signatures. Of "this emission some THREE OR FOUR THOUSAND DOLLARS were discovered "by the Bank.

"The two Banks, thereupon, made the most vigorous and persevering "efforts to detect the villains, but without success. They also warned the "public to beware of the counterfeits, and immediately took measures to "procure new plates and new paper, calling in their old emissions as fast as "possible. This was at length nearly accomplished; when in August last, "the officers of the New Haven Bank were astounded by the discovery that "their *new* FIVE DOLLAR plate had been counterfeited, with the same exact "imitation as the old, and with even more perfection in the (manuscript) "signatures. Of this emission, only THREE OR FOUR HUNDRED DOLLARS have "been discovered by the Bank.

"Since the appearance of this third counterfeit, the two Banks have been "unceasing in their efforts to solve the mystery, and bring the offenders to "justice. We rejoice to say that their efforts have been at length crowned "with success.

"Within the last few days, Henry Knickerbocker, William E. Brockway, "and a man by the name of Snyder, have been arrested at Hudson, on a "charge of being concerned in getting up or passing those counterfeits, or "both, and having been subject to a long and rigid examination, facts were "elicited which leave no reasonable doubt that some, if not all of them, were "guilty. Brockway was shown to have had an active agency in getting up "the counterfeits, and was probably at the bottom of the whole affair. "Besides the above, three persons have been arrested at Brooklyn, one in this "City, and one elsewhere, making eight, supposed to have been concerned in "the villainy. The officers of justice are in pursuit of still others of the

"same gang. Altogether, it was one of the most dangerous combinations to "defraud the public, that ever existed in this country, and we may well con- "gratulate the community, if it is at length broken up.

"The prominent part taken in the counterfeiting by Brockway, was made "known by Knickerbocker, (who was first arrested) but not till many ineffec- "tual efforts had been made to induce him to confess. Among other things "Knickerbocker states that he received FOUR THOUSAND DOLLARS of the "counterfeits from Brockway, for the purpose of getting them exchanged "for other Bills; but that finding some difficulty in so doing, he returned "THREE THOUSAND and FIVE HUNDRED DOLLARS of them to Brockway.

"It was conclusively shown that the three counterfeits were perpetrated "by the same gang. It is admitted we understand, by both Banks, that the "first counterfeits on those institutions must have been printed from the "genuine plates. As to the recent counterfeits on the New Haven Bank, "the case is not so clear; but there would seem to be a strong presumption "in favor of the supposition, from the fact that Brockway was formerly a "journeyman in the office at New Haven, where the genuine Bills of both "Banks were, at that time, printed.

"It further appeared that the villains had not confined their operations to "the New Haven Banks, but had got up and issued counterfeit TWOS on the "North River Bank in this City, and also counterfeits on one or two other "Banks.

"These facts we have obtained from undoubted sources, and they cannot "fail to be interesting to the public."

The manner in which Brockway probably succeeded in obtaining fac-similies of the Bank plates, before the very eyes of the watchful director, is thus accounted for by Mr. Frederick Gorham, the proprietor of the printing establishment, whose private character is above reproach, and whose opinion is worthy of the highest respect. Mr. G. remarks:

"You are aware that a printer adjusts his press, the first thing, before com- "mencing work; and in order to test whether he has the right pressure, it is "usual for him to place the plate, uninked, upon the plank, and lay a piece of

"waste or loose paper upon it, run it through, and then examine the effect of "the pressure on the blank paper. The printer will then screw down one "side or the other of his press, and, perhaps, repeat the performance two or "three times, before he commences work.

"Now, Mr. Brockway might have attended Prof. Silliman's Lectures, and "learned from them and other sources, the manner of making copies of plates "by the electrotypeing process; and, instead of using a worthless piece of "paper, in testing his press, might have used paper prepared with a metallic "surface, and thus obtained a mould of the most perfect description, with "which to electrotype a Bank plate of his own, in the course of a few hours."

Mr. Gorham's theory is undoubtedly correct; and our idea that the crime of Brockway was engendered by the conduct of the Bank director is by no means unreasonable. It is not to be expected that any man, who has any respect for himself, would submit to such an indignity, unless, indeed, it is precisely such a man as Brockway proved himself to be.

A little serious reflection is sufficient to convince any one that Artists, as a class, are fairly entitled to the highest confidence; were it not so, every Banking Institution in the country might be ruined. Engravers of the first, second, and even of the third class, can imitate each others work so perfectly, that it would require a close examination, for a considerable length of time, aided by a powerful magnifying glass, to enable any one to tell the difference with any degree of certainty. Happily for the public, there is no disposition for the crime of counterfeiting among them. The prevalence of it must be accounted for on some other hypothesis.

We find, not unfrequently, the very handiwork of the best Artists in this country on numberless counterfeit Bills; but this does not prove the Artists themselves to be the Counterfeiters. All examinations of this subject will tend to one point, and lead to one conclusion, namely a *radical* defect in the system of constructing the Note, which enables the designing forger to evade the task of executing anything himself requiring any artistic skill; and to employ, perhaps the very Artist who made the original, also, to make the counterfeit! Brockway's evasion of the processes of originating a Bank plate, happens to be the most complete of any before known; or at least practiced. He only gave an example of what a dishonest Bank Note printer can

do, even if the eyes of a watchful, and suspicious Bank director are constantly upon him. Where then would be the security, if Engravers were thus dishonestly inclined; more especially since many of the genuine Bank Note dies are within the reach of all of them, both within and without the precincts of Bank Note Engraving Establishments. Because there is at present a copious issue of well engraved counterfeits, there seems to be a disposition, or rather an inclination to regard all Engravers with distrust; and some of those immediately interested in the manufacture of Bank Notes, may possibly favour such an impression, for the purpose of securing increased patronage.

Those who would resort to such baseness are unworthy of the profession, and we are confident that on investigation, the propagators of the idea would prove to be some of the agents, or runners of respectable establishments; who posses neither the feeling nor talent of Artists, and only aim at, and covet the percentage in prospect.

LIABILITIES OF BANKS.

An instructive case of fraud upon a Bank was narrated in a late number of the Banker's Magazine, as follows:

"The late fraud upon the Bank of the State of Missouri, at St. Louis, is "one of many instances in which Banks and individuals have been imposed "upon by the deposit of spurious paper. We have known too, some instances "in which the counterfeit work was better done than the genuine.

"Some years since, the Bank of the United States took on deposit several "thousand dollars of spurious Bills on the Bank of the State of Georgia. "These were delivered to the latter Bank and received as genuine, and the "mistake was not discovered till nineteen days afterwards. Upon a suit "against the Bank of the United States, before the U. S. Supreme Court, to "recover back the amount paid by the Georgia Bank, the Court held that the "latter could not recover, because it had 'received and adopted the Notes as "its own genuine issues, in the most absolute and unconditional manner."

"The receipt, by a Bank, of forged Notes, purporting to be its own, must "be deemed an adoption of them. *The Bank is bound to know its own paper, "and provide for its payment, and must be presumed to use all reasonable means, "by private marks and otherwise, to secure itself against forgeries and impositions,*

"We have not learned how much of the spurious paper was lately paid into "the Bank of Missouri; but from the fact that the fraud was not discovered "for some days, and that portions of the same Bills were paid out at the "counter, *with assurances of their genuineness*, our banking friends can see the "obvious necessity of more precaution. Several old Banking Institutions "have recently provided themselves with new plates, and are now withdraw-"ing their old issues from circulation."

BANK NOTE LISTS AND COUNTERFEIT DETECTORS.

It has doubtless been observed that we have recognised and quoted as a standard work, the BANK NOTE AND COMMERCIAL REPORTER, edited by J. Thompson, Banker and Broker, corner of Wall Street and Broadway, N. Y., and published by W. Lee, No. 12, Spruce Street. These gentlemen evidently take a lively interest in the dissemination of information, in regard to every thing connected with a sound and unadulterated currency. The main object of their journal is to describe Counterfeit Bank Bills, and to guard the public as far as possible against frauds of every kind in relation thereto. In the pursuit of this object, they are now presenting their patrons with a series of facsimilies of the most dangerous counterfeit plates, engraved expressly for their work, at great expense. These plates they have generously and freely offered for our use in embellishing this work; thereby evincing a disinterestedness and liberality which calls for this significant acknowledgment on our part.

Bank Note lists and counterfeit detectors, though generally useful, sometimes unavoidably aid Counterfeiters, in their deceptions. The Forger will prepare his plate as perfectly as possible in every part but one, which is designedly left imperfect to attract notice. A horse, for instance, will be represented with but three legs. The Note will be immediately advertised in the Lists, as a dangerous counterfeit, with its imperfections specified. The Counterfeiter will now correct his plate, and forthwith print and circulate his Bills, with less chance of detection. If the Counterfeiter has not the ingenuity to do this by design, he will soon find himself doing it by accident; for it is natural that the first thing he will think of after his fraudulent production has been noticed by the detector, will be, to alter his plate, so that it will not correspond to the description given.

By referring to Thompson's Reporter, under the head of "State Bank of Ohio," the following notice will appear:

> "10s, vignette—ploughman, etc. The ploughman "has no whip, (in genuine he has,) only one of the fore- "feet of the dog are seen, (in genuine both are.)"

The rogue will now engrave the dog's fore foot, and the ploughman's whip, into the plate, and hasten with all speed to print off a new batch and put them in circulation. Again—

> "3s. vig. male and female seated, agricultural imple- "ments, etc. *Harrison* on the *left*. *Justice* on the *right*, "with sword and scales."
>
> "10s, vig. six Indians and four whites. *Harrison's* "head on the *left*. Filling up and signing—bad."
>
> "10s, a figure '10' in the centre. Figure of *justice* "on the *right* end—*Harrison* on the *left*. Well done, and "calculated to deceive."

These figures of *Justice* and of *Harrison* remain the same, but a "10" takes the place of a "3," etc., which shows that the Counterfeiter makes a few plates, which he can carry in his pocket, answer the purpose of the expensive machinery of the Bank Note Engravers. He may print the vignette on each Bill in the exact spot required, and change the relative positions of all the embellishments of his counterfeit Note at pleasure. Again—

> "20s, excellent imitation of the genuine. Persons "not acquainted with the true Bill, had better refuse all "20s on this Bank. Letter S in the name of the Bank "not perfect. Female's head in the vignette leans rather "too much to the left."

This is a hint to the Counterfeiter to improve the letter S and to make the female's head more erect. It is also a hint to the Bank that it is necessary to have a new plate—or the Bills will not circulate. Again—

> "10s, letter A, a perfect imitation of genuine. Filling "up and red stamp on the back all well done."

Every thing being "perfect" the Bank will be relieved from any further expense, in keeping up its circulation! Again—

> "100s, on all the branches, none higher thans 50 "issued."

It is worthy of remark that the number of branches is FORTY ONE!! Again—

"10s, excellent imitations of the first plate, having for "vignette a male and female figure on either side of a "shield, with a large X in centre. Better refuse all 10s of "this plate. These are supposed to be from a genuine "plate with spurious signatures."

"Supposed to be from a genuine plate!" Several cases of this kind are recorded, and we can form no idea how a Counterfeiter can possess himself of them, except by ordering parts of the engraving done by different persons, at different times and places, and then composing his plates as a printer composes his form, with the *genuine* work of Bank Note Engravers actually upon them!

Again, the Bank Note list says:

"2s, letter A—The lathe-work on left margin and head "of Wm. Penn are poor—the right foot of the Indian in "the vig. is poor, and looks more like a stump than a foot, "The word "Cincinnati" after the engravers names, looks "like "Cincinnali,"—The general appearance of the note "is good, and very likely to pass unless closely scrutinized."

After this lucky criticism the forger will see that the lathe-work and the head of Wm. Penn ought to change places, or be somewhat improved in their appearance; the Indians fore-foot will be corrected, or perhaps something will be introduced in the plate to hide it entirely from view; the last T in the word Cincinnati will be rectified, and then the general appearance being good, it will very likely pass, however "closely scrutinized."

It will be found that Counterfeiters pay no regard to the vignette in the matter of its resemblance to those on the genuine Bill. They do not care whether it is a "Venus," or a "Farmer holding a plough." It is equally immaterial to them, whether the "lathe-work" oval was made in the same net-work style as that of the Bill they intend to imitate. They only require a few *vignettes* about the size of those employed on Bank Bills, a few lathe-work ovals of any pattern, and a few machine copies of plaster medals, all of which can be very easily procured. In fact FIFTY DOLLARS would buy materials enough to make a current imitation of the picture portion of every Bank Bill in the Country; and keep the Counterfeit Detectors employed in noticing their issues, even if they published an extra every day in the year.

DEFECTS AND INSECURITIES OF THE PATCH-WORK SYSTEM.

From the facts and statements of the preceding pages, we think that the patch-work system is chargeable with inherent weakness and defects, which no ingenuity nor secresy can remedy. It has been made apparent that frauds can be, and have been perpetrated by means of it. Let us now invite the reader's candid attention to the weak points of the system, as illustrated by the previous incidents and reasonings.

First.—The use of many detached pictures on one Note, making it possible for the Counterfeiter to procure the various parts of different Artists, and rendering alterations in the denominations peculiarly easy.

Second.—The employment of dies, and a press, to transfer the various detached pictures into the plate; (the same dies being used for other purposes,)—the Counterfeiter accomplishing the same thing more pefectly in the more simple method of electrotyping the plate.

Third.—The employment of the work of the Geometrical Lathe, in the oval denomination, and using the same denomination figure thousands of times on various Notes, label plates, etc., placing the original work of the machine within the reach of the Counterfeiter.

Fourth.—The employment of the Medallion Ruling Machine, which the Counterfeiter can purchase for One Hundred Dollars.

Fifth.—The general resemblance of all Bank Notes to each other. The confused multiplicity of small pictures, renders it impossible for any one to remember them; enabling the Counterfeiter to pass Notes which bear little or no resemblance to the genuine Bills of the Bank.

Sixth.—The absence of uniformity in the sizes of Bank Notes, which enables the Counterfeiter to cut Notes in pieces, and make five Bills out of four, or seven out of six, etc.

Seventh.—The unnecessary finish given to the vignettes, which is totally destroyed in a few days' circulation.

Eighth.—The patch-work system of constructing our Notes, which is adop-

ted for the sole purpose of making dies and machinery available to Bank Note Engravers; notwithstanding the palpable fact, that the employment of any vignette, ornament, or denomination, TWICE on the same Note, or on different Notes, exactly DOUBLES the temptation to counterfeit it!

On a careful examination of these insecurities we are willing to hazard the assertion, that no system of Bank Note Engraving can be devised so perfectly adapted to the Counterfeiter's purpose as this. The beautiful workmanship of each particular part, the great amount of labor which SEEMS to be requisite in the execution, presents an outward show of security, well calculated to lull suspicion of any defect.

In regard to the six weak points, first mentioned, we believe it has been shown conclusively, that the construction of our Bank Notes is peculiarly convenient for Counterfeiters, and that they, of all persons, not excepting the professional Bank Note Engravers, would, if they dared, oppose any new method, which will render their trade difficult and laborious.

With regard to the seventh point, that of highly finished vignettes, it may be remarked that every one must be aware, that the beautiful India proofs, taken from the new plates, are far more valuable, as works of art, than the impressions on Bank paper, which are intended for actual use. Where is the utility in employing such highly finished work, when the first impressions intended for use are deficient in showing the full beauty of that finish?

And further, when it is known that a few days' circulation wears off what little beauty is obtained on the oily Bank paper; is it not a waste of labor to attempt the production of that beautiful finish in the first instance?

What would be said of a Rail Road Company who should have the surface of their iron rails filed and polished? Where would be the utility in giving the Russ pavement the beautiful finish of a marble top table?

The wear and tear of a Bank Note is hardly less severe than the above examples. All that is needed is UTILITY, SOLIDITY, and SECURITY, which are sadly deficient in the patch-work Bank Note, as we have already sufficiently proved.

NECESSITY OF A CHANGE IN THE STYLE OF BANK NOTES.

It has become painfully apparent that Counterfeiters can easily obtain, and are now obtaining as fast as possible, the plates of all the Banks that have failed within the last thirty years, and are altering the lettering upon them for fraudulent purposes. It is undeniable also that Counterfeiters can collect, and are now collecting plates originally engraved for Checks, Drafts, Bills of Exchange, Notes of Hand, Labels, etc., and are using the pictures upon them to compose Bank Notes. In alterations of the denominations, it is notorious that no genuine Bill is exempt from its practice. It is further true that the late discoveries in science enable them to dispense with the old method of multiplying plates by means of the transfer press.

Banking institutions will see, therefore, the necessity of taking immediate and energetic measures to change the entire system of constructing the Note, since they are liable now to have their Bills copied piece by piece, by the best Artists.

If misfortune should overtake only *three* Bank Note Engraving Companies, almost the entire banking circulation of the country would have to be withdrawn; a vast power is therefore at the mercy of circumstances. In the first part of this work, we gave flattering notices of successful Bank Note Engravers; but there is a reverse picture showing that the very best Artists have repeatedly failed in establishing themselves firmly in the business; proving that success does not necessarily attend those who have the greatest amount of artistic merit.

When unfortunate Engravers have failed, their stocks of beautiful dies have been sold at incredible sacrifices; and the original vignettes, denominations, etc., which are seen on scores of Bank Bills, now in circulation, have been scattered over the country, enabling any one who purchases them, to make duplicate Bank plates, so perfectly, that it would be difficult to detect the fraud.

The following instance of scattering original Bank plates may be implicitly relied upon: a person immediately concerned in a Bank Note Engraving Establishment sold from ten to fifteen original plates of broken

Banks, for a copy of the American edition of Sir Walter Scott's novels. The person who bought, sold the same again to a Lithographer in Wall St. for two hundred dollars. The plates were subsequently used in manufacturing Checks, Bills of Exchange, Labels, etc., until we loose all traces of them. If we desired to swell the number of our pages, we could give numerous examples similar to the above; but we will mention only the following instances, as among the many which have come within our own personal knowledge: the writer once bought for a few dollars a steel-plate, containing about twenty vignettes, which an unsuccessful Bank Note Engraving Company originally intended for a specimen sheet. At another time he bought for ten dollars, a steel Bank plate, nearly new, of the denominations ONE, TWO, THREE, and FIVE. These plates were cut up, hardened, and cylinder dies, nearly as perfect, as the original, were reproduced therefrom. The Artists who executed them originally, occupy a high position at present in Bank Note Engraving Establishments. We were recently asked, "how much will you give for four steel Bank plates, one of which is nearly new?" Though those plates were, not long since, engraved by the firm of Danforth, & Co. we declined purchasing, unless at a price too trifling to be worthy of notice.

The failures of Burton, Edmonds, & Co., and of Durand & Co., at one time flooded the market with the very choicest materials for Bank Note frauds. The most beautiful lathe-work of Mr. C. Durand's improved machine, consisting of ovals, circles, strips, end-pieces, and borders, all finished with denomination figures, and lettered as seen in Plate Four, were sold and exchanged among Label Engravers, and Lithographers, from Canada to the city of Mexico, and from the Atlantic coast to the Mississippi river. We have traced one set of dies, most of which were designed and engraved by our highly distinguished Artist, J.W. Casilear, Esq., and which formerly belonged to Burton, Edmonds, & Co., to South America; and almost an entire set, together with the Transfer Press, was lately sold for the small sum of five hundred dollars; enabling any one, therewith, to execute fac-similies of many Bank Bills which are now in circulation!

The splendid vignettes of Durand & Co., some of which were designed and engraved by the renowned A. B. Durand, Esq., which so enriched their specimen sheets of Bank Note materials, that it is utterly hopeless for any other Artists in the Country to surpass, if even to equal them, have shared

the fate of those of the unfortunate firms of Woodruff & Hammond, of Cincinnati; of Terry, Pelton, & Co., of Boston; of the Boston Bank Note Company; and of Hall, Packard, & Co., of Albany.

A Transfer Press and genuine dies were recovered from the notorious Counterfeiters "Bristol Bill," and Meadows, in Vermont, together with Bank plates almost ready for use, upon which they had stamped vignettes, originally engraved by our best Artists, who are now engaged in the Business of Manufacturing Genuine Bank Notes. Transfer Presses and duplicate Bank Note dies are in common use in several places in this country; and impressions of genuine Bank Note vignettes, lathe-work denominations, etc., are transferred on copper, and steel, for a trifling compensation. Lithographers make use of them to transfer pictures on stone. Engravers in all parts of the Country employ them for Cards, Labels, Bills of Exchange, Notes of Hand, Checks, Drafts, Rewards of Merit, School Certificates, Certificates of Stock, and various other legitimate purposes. Thus, copper-plates are multiplied, and scattered, which contain the very vignettes etc., which are on genuine Bank Bills, NOW in circulation. Counterfeiters are in possession of these plates, together with *all the machinery of the original Bank Note Engraving Establishments*, and are flooding the country with spurious money,—changing their attacks from one Bank to another, until they wear out their plates in printing, only to supply themselves with those more improved in workmanship. In short, the materials for imitating every patch-work Bank Bill in the country are innumerable, and easy of access; and the TRADE IS YET IN ITS INFANCY.

Counterfeit detectors are overrun with notices of new frauds. Newspapers contain frequent announcements of the discovery of "gangs of villains," part of whom are arrested, while the others profit by experience and evade detection. Lists of "new counterfeits" are frequently published to warn the people,—the lists become more and more frequent, and the frauds more and more ingenious. The heavy losses by Bankers, Merchants, and Brokers, are trifling, compared with those of the poorer classes, which form by far the largest portion of society.

Aside from considerations of a pecuniary nature, there are those of morality. Hundreds have doubtless been induced to engage in forgery, who might have remained honest men, had not these temptations been scattered so profusely

in their path. Many have been seduced to ruin, who might have remained innocent, but for the EASE with which they could engage in CRIME.

The root of all this evil lies in the injudicious use of the Transfer Press, the Geometrical Lathe, the Medal Copying Machine, and in the PATCH-WORK SYSTEM *of constructing our Bank Notes.*

DIFFICULTIES OF EFFECTING A CHANGE OF SYSTEM.

The Patch-work system of Bank Note Engraving has been practised in this country from the first introduction of a paper currency. Indeed, the system is, to some extent, employed in the manufacture of all Bank Notes we remember to have seen, not excepting those of the Bank of England. This is, however, no argument in its favor.

The change which we shall propose is a change of the entire system. It lays the axe at the root of the tree; and will dispense entirely, and for ever, with the use of dies, machinery, and other mechanical contrivances, by means of which the business of Bank Note Engraving is rendered so profitable to those engaged in it. It is not to be expected that such an innovation upon the established business of wealthy and influential companies, will be suffered without strenuous opposition. We anticipate for our proposed system no opposition from any other source; for the only other interests with which it will conflict, are those of the Counterfeiter, whose opposition will hardly be made public. It would be too much to expect that those who have large investments already made in dies, machinery, and other stock used in the patch-work system, would regard a new style with impartiality; and the opinions which they may have occasion to pass upon it as a matter of art, or of professional workmanship, are not likely to be friendly. Yet the reader, who feels an interest in the subject will be under no necessity of resorting to any one for an opinion of the merits of the system, since its principles are so plain, and its adaptedness to avoid the main difficulties which we have demonstrated to belong to the old system, so obvious, that the conclusions of honest common sense will be sufficient to perceive its value.

We anticipate then, from the natural hostility of parties whose interests will necessarily be affected by the system proposed, our first great difficulty

in effecting the change which is so desirable. We anticipate a thousand modifications of the patch-work system, to obviate the demonstrated dangers and evils which inhere in it, and to save the necessity of abandoning dies, Transfer Presses and other machinery. The use of dies will be adhered to with tenacity and zeal: and new and ingenious devices will be resorted to, to bring them into use. The whole surface of the Bill may be covered with vignettes, blended together, so as apparently to conform to the principles of the system we propose. Such expedients will be both natural and plausible, yet they will not, and cannot reach the source of the difficulty. The use of dies at all, and consequently of separated vignettes or pictures, makes the Counterfeiter's work easy: and Banking Institutions, desirous of guarding against counterfeits, should avoid them. It need only be inquired, in respect to any new design for a Bill, whether any part of it is engraved by means of dies. If so, then there is no protection against imitation, except the Bank shall demand every die, together with every impression from it, and the original bed-piece. Nay, to be secure, the very machines by which the dies were produced must also be kept in the possession of the Bank, in order to be safe from the use of an exact duplicate on other Notes, or perhaps on Checks, Certificates, or even Quack-medicine Labels. But such a practice on the part of the Banks would of course render the employment of dies quite too expensive; and they would soon be abandoned in Bank Note Engraving, and be reserved for those other purposes for which they are adapted, and where there can be no need of guarding against fraudulent imitations.

This objection to the employment of dies, is not in the least obviated even if the Banks purchase at an extra price the die or dies used in making their plates; for so long as the Notes are composed of small detached pieces of work, the Counterfeiter will procure each separate part engraved by the best Artists for some apparently honest purpose, and employ it afterwards in the business of counterfeiting. The question therefore is not, what new or ingenious dies are executed, or what novel combinations can be made by means of those dies; but, whether or not those dies are used at all!

Other difficulties may arise to oppose the candid estimate, or the speedy use of our proposed system. Yet we rely confidently upon the good sense of the community, and upon the intelligence of Banking Institutions, whose interests are so vitally affected by it. They will have seen in the previous part of our work, if they have not discovered it in their own experience, the

perils of the present system; and detecting the source of those perils, they will not hesitate to welcome a substitute, offering fair promise of better results.

We may, perhaps, anticipate an opposition to our proposed change, in the idea already diffused to some extent, that there are not Engravers enough in the country to execute the plates on the new plan, with the required expedition. But what would be said of an argument, analagous to this, if employed by the builders of houses; that they must have the privilege of erecting buildings still more slender, because, forsooth, there are not materials and men enough, to erect them with proper stability. The fallacy of the objection becomes obvious by putting it to this simple test. We have not framed the proposed system to favor any branch of the arts; nor to facilitate the manufacture of paper money to meet a large demand.

It has already been intimated that Bank Note Engravers are executing new and exquisitely engraved vignettes, which, in future, will be proof against counterfeiting. Let us give all credit to the skill and ability of their work; their recent specimens of engraving upon Bank Notes are of surpassing elegance. But let it be borne in mind that if a die be made, it must be made with the intention of using it many times. The privilege of using it for the FIRST time, may be granted, for an extravagant price, to the Bank; and a SUBSEQUENT impression may actually fall into the hands of the Counterfeiter, at a less price!!

We have not the least doubt, but that every practical Engraver, who will thoroughly investigate the subject, will acknowledge the insecurity of the present system, and the advantages of the one we shall propose. And if the few exclusive Bank Note Engravers, who, having a reputation of being the only Artists capable of executing the work, and who are, therefore, always applied to for such work, should find it for their interest to abandon the old system, and adopt the new; they would immediately do so. If Banking Institutions throughout the Country would call a convention of their Presidents, and extend a general invitation to Artists of all classes, with the view of obtaining accurate knowledge of the true principles of constructing and engraving a Bank Note to prevent forgery, we have no doubt of favorable results. Let the Banks, then, as a body, show a disposition to protect the

public from these frauds as far as possible; but let them direct their investigations in the right channel, in order to arrive at correct conclusions.

Congreve clearly defined the rules for constructing a Bank Note, to give the utmost difficulty to the Counterfeiter; but he failed in describing a syssem that could stand his own test. It requires a practical knowledge of many and various arts, in connection with that of Bank Note Engraving itself, in order to define a system that will accomplish the desired object. This practical knowledge it cannot be supposed that Congreve possessed. The plan which he proposed to substitute, therefore, possessed no better qualities than that which he condemned. He could clearly see and describe the laws regulating a perfect system, but was incompetent to describe a system conformed to his own laws. The writer of this work, may claim at least this advantage over Congreve; that he has long been engaged in the practical business of Bank Note Engraving, and is familiar with its merits and its defects. While free to acknowledge his indebtedness to Congreve for many ideas; he has derived but little suggestion that could assist in the construction of a new and better plan.

All the difficulties of effecting a change of system, proceed from the natural hostility of the wealthy class of Artists, whose interests are at stake, and from the general apathy and indifference of Banks themselves. From the former, we may have nothing to expect, in aid of the cause; but to the latter the public will look for immediate and energetic action.

DETECTING COUNTERFEITS.

It may be expected that we should say something in regard to the best methods of detecting counterfeit Bills in the present system. This may be regarded as an intricate profession, requiring constant study and practice. A thorough knowledge of this business is very essential to our brokers, and large dealers in uncurrent money, yet we often find that they are deceived. Counterfeit money, to very large amounts, has actually passed into Banks, and has been paid out again, without suspicion of anything wrong. A Teller of one of our Banks informs us that he has no system, or guide, or rule, in detecting spurious Notes, except their general appearance. Bank Note Engravers, who ought to be the best judges, have often been deceived; indeed, how can

it be otherwise, if genuine Bank Note dies are employed in making the counterfeit plates!

The most infallible method for Banks, is, to notice the number on the Bill; and when they receive two Bills at once, of the same number, they may pretty safely conclude that one of them is counterfeit. We know of one instance where counterfeits were detected by this method.

Counterfeits are more readily detected than the more prevalent alterations in the denomination. By closely scrutinizing the larger Bills, from five dollars upwards, altered Notes may be detected, sometimes by a blurred appearance of the letters and figures which denote the denomination. We have shown that a published description of a counterfeit Note is only applicable to those printed from the plate beforehand. The Counterfeiter can easily alter his plate and print a new emission, and then a new description will be necessary. It is IMPOSSIBLE to anticipate the various disguises of a single counterfeit plate in the present system.

In the system which we shall propose, the large class of frauds in altered Notes, will be entirely obviated, and counterfeiting of the whole Note will remain as the Forger's only alternative. A description of such a plate will be complete and final. A counterfeit plate in the system we shall propose can not be used for any other Bank than the one first designed. The rules for detecting such plates, will be of lasting service to the public, but all attempts to describe a patch-work counterfeit, will be of as much service to the Counterfeiter, as to any one else; because the methods, and means, of altering the *plate itself*, are numerous and easy.

A TRIBUTE OF RESPECT TO ARTISTS.

We have endeavored to prove that the present style of engraving Bank Notes is exceedingly open to the attacks of the Forger, because he can obtain his materials of professional Artists, unsuspected by them. The Forger need only possess a degree of low cunning and hypocrisy, without a particle of artistic talent. Engravers, therefore, are constantly liable to imposition. They are generally careful; and though they have a perfect right to engrave any detached picture, separately, that appears on a Bank Note, for any person ordering it, they invariably refuse to do so, if there is the least suspicion of improper motives on the part of such person. Notwithstanding this, it is

utterly impossible for them to avoid rendering aid, sometimes, to Counterfeiters, under the present system of Bank Note Engraving.

It must be apparent to every one that the paper currency of this country is perfectly at the mercy of our Artists. It would be little more so if the Banks should lend their original plates indiscriminately, to any and every Engraver in the community. There is no way for one Engraver to protect his work against a fac-simile copy by another, even in the most perfect system of constructing the Note, except by the law of copy right: and the copy right law, in the very nature of the case, has no effect to prevent counterfeiting.

A remarkable degree of integrity, therefore, must be awarded to our Artists, as a class; because there has never been an instance of counterfeiting among them. If an exception is to be made, we are inclined to think that it is due in the case of Meadows, who was arrested for the second, or third offence, and convicted with "Bristol Bill." But it will be found that Meadows is, comparatively, a very inferior workman; and further, it will actually be found that he learned nearly all he knows about Bank Note Engraving, while serving a former term in the State Prison of Charlestown, Mass., where he, together with others, were employed in the business of engraving. We are informed that the State of Massachusetts has loaned out his services again, to the same contractor, to be still further initiated into the art and mystery of manufacturing Bank Bills, or at least in some kind of engraving analagous to it. The Banking Institutions of Boston and vicinity should investigate this matter.

If the great majority of Artists, who now have no interest whatever in the most profitable branches of their profession, are still watchful guardians of the public good, as well as of their own honor, let them be elevated to a dignified position as men; and let the only distinguishing quality be *their relative merit as Artists*. Thus, while we enlarge their field of operations in the most lucrative branch of their profession; we attain the highest possible security against forgery, and remove, from among the lower orders of society, a monstrous temptation to crime.

A WORD TO BANKS.

It is the common practice of some of the small Banks, organized and located in remote sections of the country, to adopt the name of Institutions

located in large cities; and to cause their Bills to be so engraved as to resemble those of their namesake. When this is done, the suspicion naturally arises that deception in some shape, is intended: not, perhaps, as in the case of the Counterfeiter, to defraud the public of the whole amount of the Notes; but to obtain the trifling difference of discount, or for the purpose of gaining a circulation which rightfully belongs to the Bills they imitate. When a Counterfeiter imitates and issues Bank Notes, he is never suspected of any intention to redeem them; and instead of cheating the community out of a half, or a quarter of a cent, HE intends to defraud them of the whole amount; and this constitutes, as we think, the principal difference between the two.

These imitations, moreover, directly facilitate the Counterfeiter's work both by the example they set, and by the multiplication of similar dies and vignettes. They tend also to increase the confusion of Bank Notes, thereby enabling the Counterfeiter to pass off his spurious imitations, with less chance of detection.

WHAT WE HAVE PROVED.

In order clearly to show the necessity of a change of system of constructing our Notes, which is the only object we have had in view, we have been compelled to describe in Part One, the method of engraving, as practiced at present, by professional Bank Note Engravers; and also to expose, in Part Two, to the extent of our own knowledge and belief, the various practices of Counterfeiters. To the latter we have doubtless told nothing new, for their ingenuity has already anticipated everything that can be said on the subject; but to the former we shall, perchance, convey valuable information, which if viewed in the light of candor and reason, may, possibly, induce them to lend their aid in effecting a GREAT PUBLIC GOOD.

We have proved that the PATCH-WORK and CYLINDER DIE system enables the Counterfeiter to obtain on his counterfeit plates, the genuine work of the best Artists in the Country, even the genuine work of the Durands, and of Casilear, and other eminent Bank Note Engravers. Such a circumstance involves no blame whatever, nor any guilty knowledge on the part of the Artists. Now, let us adopt a proper system, and such a circumstance would involve blame and guilty knowledge on the part of any Artist whose own work should appear on a counterfeit Note.

With a single remark, we will proceed to describe our proposed system. So long as the patch-work system is practised, frauds will be inevitable. No skill of execution, nor vigilance, nor secresy, can preclude successful counterfeiting. Mechanical skill has been exhausted in devising combinations of detached pieces of work, but without at all impeding the arts of the Counterfeiter. If remedy there be, it must be a remedy of the *system*, and to this, we now invite attention.

PART III.

A New System of Bank Note Engraving.

In offering a new system of Bank Note Engraving, adapted to avoid the evils and imperfections which have been proved to inhere in the present system, the writer would pretend to no infallible remedy. Perhaps it is not possible for the highest order of genius to invent that which may not be imitated. There is no such thing as a *perfect* protection against imitation; it were a proof of charlatanry to claim it. The most that can be exacted of a system, is the best possible approximation to a perfect security. And this, it is claimed, that the system developed in the following pages, fairly and undeniably attains.

Bank Bills will be most secure against the arts of the Forger, when they are so constructed as to *compel* him to resort to the same methods in imitating the Note, as are employed in the original construction; or if not the same, methods equally difficult and costly. And this forms the principal feature and distinction of our plan. It does not propose to baffle the Counterfeiter by secresy, but to set his arts at defiance—to render imitation too difficult to be remunerative, and impossible without the aid of artistic skill nearly equal to that employed upon the original Note. It may serve to show in some degree, the merits of the system, that we are unable to illustrate it by a multitude of engravings, as we have already been able to do in reference to the old system. For, while, it is easy to produce Bank Notes of the present style,

at trifling expense, the illustrations of the proposed plan cannot be furnished at a less expense than would be required to provide original work for Banks.

THE NEW PLAN.

We recommend the entire disuse of all mechanical contrivances and machinery, and a resort to the simplest means, openly, and in defiance of the Forger. The main features of the plan we propose are the following:

First Requisite.—ONE DESIGN.—The whole surface of the Bill should be covered with one unbroken and inseparable design, with the lettering so interwoven by the hand of the Artist, as to form an integral part of the design. If this be done, then the security against imitation or alteration will be exactly in proportion to the ingenuity of the design, the talent of the Artist, and the amount of labor bestowed upon it. The Forger will be obliged to encounter all the difficulty in imitating, which the Artist experienced in constructing.

The obstacles which the adoption of this principle will throw in the way of the Counterfeiter are obvious. If the Artist designs and engraves the *whole Note* at once, on the whole surface of the plate, and never himself engraves another like it, it cannot be copied without the employment of talents, nearly equal to those by which it is first produced.

If the original plate is the workmanship of the best Artist in the Country, it is plain that the utmost difficulty will lie in the way of its imitation.

If the Artist bestows upon the original plate a great amount of work, the Forger will encounter a corresponding amount of difficulty.

If the Artist employs no dies in the execution of the original work, no *part* of the genuine plate can get into the hands of the Counterfeiter.

If there be but *one* picture upon a Note, it will be readily remembered, and counterfeits will be readily detected.

If the Artist employs only *one* design, or vignette, to cover the whole Note, the Forger cannot get his work done by professional Engravers, a little here, and a little there. If the Artist will not assist the Forger, the Forger will

be compelled to rely upon his own skill, and, in all probability will not succeed in producing a passable imitation.

The use of a variety of designs and dies, arranged together in the patch-work system, renders it perfectly easy for the Forger to obtain the genuine work of honest Artists for his fraudulent purpose. But the employment of a single design—covering the whole Bill, would put an end to this. If a Counterfeiter wished to imitate a portrait, he could not obtain from one Artist an eye, from another a nose, and from a third a forehead; the very nature of the work demands that it should be done by one and the same Artist; and no part of it could be engraved without a knowledge of the design for which it was to be used. So would it be if a single design, or vignette, were used upon the Bank Bill. Being inseparable, no part of it could be engraved without the whole, nor without a knowledge of the purpose to which it was to be applied. Of course, by this, the Forger's greatest facility would be removed entirely.

The benefit of weaving the lettering into the design, is, that neither the name of the Bank, nor the denomination of the Note, can be changed, or altered. This would, at once, prevent that large class of frauds.

Second Requisite.—The second requisite of our plan is the following: that the Bank, which obtains a new design for its Bills, shall *copy-right* the Notes, so that the design upon it shall never be used for any other purpose

Let the Bank also retain possession not only of its plates, but of every part of them, in whatever shape or form they may exist.

The benefit of this precaution would be, that if a Bank should fail, and the steel-plates of its Bills be sold, the Counterfeiter could not, by obtaining them, and altering their denomination or name, make them represent the Bills of good Banks, as he can now easily do. And if the Bank Note Engravers should fail, and their stock be sold, their plates and dies could not be used for counterfeits, as they now can be. Under the present system, the failure of one of the large Engraving Establishments, might prove fatal to the circulation of every Bank that had employed it.

Third Requisite.—Another safeguard, in the case of all issues of Free Banks, would be obtained by entirely covering the back of the Note with the

Arms of the State—splendidly, and, if possible, inimitably engraved, with the denomination of the Note inseparably interwoven. This plate should be sedulously kept in the Bank Department, and in no other place; and the printing upon all Bills done by the Department; for which, if a small remuneration were charged, the profit might defray, perhaps, the entire expenses of the Department.

It being also one design, would not only ornament the Bill, but double the difficulty to the Counterfeiter, who being unable to procure it piecemeal and by fraud, would be obliged to engrave it himself.

It would moreover furnish the people a ready means of comparing one Note with any other, and would give an additional means of influence to the Bank Department.

FOURTH REQUISITE.—Another source of safety we recommend, is, to throw the business of engraving Bank Notes open to all Artists, who are competent. Let any Artist design and execute a single Note plate, of any denomination, according to the preceding rules: and let a plate of three or four Notes be made by multiplying it, by means of the electrotype process, which is the simplest and most accurate of all "transferring" processes. The original plate being thus only used for producing the copies, could never wear out, or require repair.

FIFTH REQUISITE.—It would furnish another great security against that species of counterfeiting which consists in altering the denomination of Notes, to enact a law requiring uniformity of sizes in all the Bills of a State. The different denominations should be of different size—the ONE DOLLAR Notes being a trifle smaller than those of TWO; and increasing in size, with the increase of the denomination. This would enable every observer to detect any alterations of denomination, and to measure the amount of a Note by a foot-rule. It would put an end also to another frequent and dangerous species of counterfeiting,—the cutting of Notes into pieces, and making five forged Notes out of four genuine ones.

SIXTH REQUISITE.—It would add much to the convenience and security of a system of Bank Note Engraving, to require that the designs for Bills, should observe some principle of indicating the locality of the Bank, or of the Town, or State, or at least, the section of Country, to which they belong.

A view, for example, of the Falls of Niagara, might form a part of a design to designate an Institution created in that section of Country. The Bunker Hill Monument, for a Bank in Charlestown, or Boston. By this means the public might become more easily familiar with the designs of the various Bank Notes of the country, so that a spurious vignette could not be passed off. As it now is, there is perfect confusion of designs. Not even the most scrutinizing broker pretends to keep account of all the vignettes adopted for the various Bills of the Banks, on all their denominations.

It will be observed that, completely to realize the benefit of the proposed plan, legislative enactments will be necessary. But the principle of these benefits can be secured at once, without any such legal interpositions. A reform may be commenced by any Banking Institution, the result of which will surpass any preconceived conceptions.

OBJECTIONS.

It is not to be supposed that every objection which interested and ingenious minds may suggest to the details of our system can be anticipated. No criticism, nor reproach will be withheld, to dispute its claims. But some of the more obvious of these objections, which will be apt to rise in the mind of the candid inquirer, we will consider.

If it be asked—Will Bank Notes engraved upon the proposed system *cost* more than those engraved upon the present system, we answer, unhesitatingly, No.

The charge now made for engraving a Bank Note plate, is One Hundred and Twenty-five dollars, each Note. A plate constructed upon the new system, might cost Two Hundred dollars, including the design and engraving for the single Note. But this may be multiplied by the electrotype process, so as to make a plate of two or four Notes, for Ten dollars each copy. The cost therefore of a plate of four Notes, of one denomination, would be Two Hundred and Forty dollars: while the cost of such a plate of four Notes, in the present system is, as Bankers well know, Five Hundred dollars. The printing a plate of four Notes, *ought* not to cost the Bank more than Two dollars per hundred impressions.

Will the proposed system require a longer time to execute the work?

Not in the aggregate; for if speed be required, one Artist would be em-

ployed on each Note separately: and two, three, or more plates would be obtained just as readily as *one*, both in the engraving, and in producing plates of four Notes, by the electrotype process; and any number of presses could soon be put in requisition to print a large number. The time lost in the engraving, would be more than made up in the printing.

Are there good Engravers enough in the Country to execute the work required by the Banks, on the proposed system?

We answer, unhesitatingly, that there are. And no inconsiderable benefit of the proposed system would be found in the distribution of the business of Bank Note Engraving, which it would effect. Instead of being confined to three or four firms, a hundred or more Artists would be employed in the business—and the public security would be promoted by it. The safety of the public ought not to be sacrificed to the interest and convenience of a few Engravers. It should also be borne in mind, that while the skill and genius of the best Engraver may find proper scope in Bank Note Engraving, the highest style of art is not requisite, as a means of guarding against counterfeiting. It is well known that the beauty of the engraving upon a Bank Note is soon effaced by circulation. The Counterfeiter, therefore, never imitates a newly issued Bill, but reserves his attacks for those which have been worn. There is but little practical utility, therefore, in employing highly finished vignettes, unless the practice of the Bank of England be adopted, of destroying the Notes which have been once issued and returned. If Bank Notes are made by means of dies, there is no security against counterfeiting, however elegant they may be.

Is the proposed system as safe in respect to the fraudulent circulation of loose Bills from genuine plates?

It cannot be more *unsafe* than the present system. If any practical Artists were inclined to dishonesty, the present system enables them to obtain the genuine dies, and genuine work, in a variety of ways; and the Country might be flooded, to a still more alarming degree, with well engraved counterfeit Bank Notes, without any clue to their source.

But in the new plan, the Artist would be strongly interested in guarding the trust reposed in him by the Banks, since the appearance of his genuine work on a counterfeit Note would be traced directly to him, and could not

be obtained from any other source without incurring an amount of labor and expense which would not remunerate the Counterfeiter. He could not obtain a part of the plate of one Engraver, on one pretence, and a part of another, on another pretence. Nor could he obtain old broken Bank plates, and alter the lettering upon them, as he now does. The design being one and indivisible, no part of it could be obtained without the other part, nor without the purpose of it being known. The design also covering the whole surface of the plate, and embracing as an integral part of it, all the necessary lettering and devices, it could not be altered, without so defacing it, as to make the counterfeit at once discernable.

Under the present system, a Counterfeiter can collect plates here and there, and compose them together into the required form, so as to imitate any, or all the Bank Notes in the country, with the genuine work of the very Artists employed by the Banks to do their work. As the different parts of the Bill can be separated from each other, one portion may be obtained of one, and another of another, and the fraudulent intent may not be detected till the last finishing touch of printing be given. Counterfeiters now seldom attempt the superfluous folly of engraving a Note anew: their work is done to their hands, and scattered over the country in the form of Checks, Labels Bills of Exchange, etc.

Will the new system prevent the alteration of BANK NOTES?

Most effectually and *decidedly*, IT WILL. No one would attempt to erase one word and substitute another in Bank Bills engraved and printed on this plan. The Artist himself would never attempt to alter the plate by taking out one line of lettering, and engraving in another. He would at once pronounce it impossible to be done in any proper manner.

The view of a building, a landscape, or a historical subject, where the lettering would be woven into the whole design, the full size of a Bank Note, by the hand of the Artist, would soon become familiar to every business man, and any attempted alteration in it would be discovered at once.

Will the new system prevent counterfeiting?

We confidently assert that it presents the *greatest amount* of difficulties to the Counterfeiter.

If Artists turn Counterfeiters, there is no protection in any work of art. All we pretend to do is, to compel the Counterfeiter to resort to the same process to produce a copy, that is used in producing the original; thus, we *fix* upon the forgery *all* the difficulties of the original. We make it impossible for the Counterfeiter to obtain any part of his plate from the honest Artist, under any pretence. We make the intent of the Forger evident at the very first step in the process of counterfeiting,—namely, that of tracing the whole design of the Note on the plate, preparatory to engraving. And we render it impossible for him to use the plate for any other purpose than the one first designed. The Counterfeiter, being forced to use his own skill in engraving, would be obliged, in order to be at all successful, to possess the combined talent of a landscape, portrait, historical and writing Engraver, which is rarely found in any professional Artist, in any country. If he should be a good picture Engraver, he might not be able to execute letters well; and *vice versâ*. But let it be borne in mind, that in the present patch-work system, the Counterfeiter is not compelled to execute anything himself, except the mechanical process of filing, fitting, and electrotyping his separate pieces.

A PATENT PATCH-WORK BILL.

Since the present work was commenced, another variety of the patch-work system has been issued, with some ingenious, but impotent variations, made in the vain hope of preventing alterations in the denomination. The Inventors have filed a caveat in the Patent-office; but what there is in the invention worthy of a patent, we are unable to discover.

The following notice of the new Bill is taken from Thompson's Reporter:

"In executing the Notes for the National Bank, D. C., the Engravers, "Messrs. Danforth, Bald, & Co., have adopted a perfect guard against altering "Notes from a lower to a higher denomination. It is simply this: on the "right margin of the ONES is one border, on the TWOS, two borders; and on "the THREES, three borders, etc. The reading of the Notes comes plump up "to the borders, rendering it impossible to alter the Notes without distorting "their proportions. These Notes are peculiar, and unlike any other Bank "Notes in another particular—on the left end is a very large vignette or hemi-"sphere, surmounted by an eagle. Altogether these are the most unique "and pleasing specimens of Bank Note Engraving, we have ever seen."

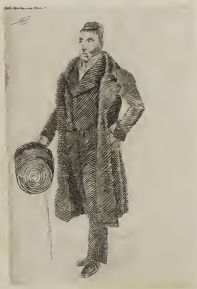
Instead of being secure against alterations, this is the easiest of all Bills we remember to have seen, both to alter and to counterfeit. In the right margin of the Three, which is intended to be composed of three borders, a lathe work denomination Three appears in the centre. A Counterfeiter might substitute a Fifty denomination for the Three, which would almost defy the closest scrutiny. The margin would then appear to the public a beautiful 50, perfect in every respect, and would pass as such without any notice of the confused lathe work borders, which might pass as representing fifty borders instead of three. The Banks would discover the cheat of course—as they always do; but the tradesman would not. Besides this mode of altering the note, the Counterfeiter could cut off the entire margin, and substitute another of his own, of a fifty, or a hundred. He could extract the ink on the margin, and print in another denomination. The margin is composed of many separate and distinct pieces of work, which could be procured, if need be, by the Counterfeiter, of as many different Engravers, for apparently an honest purpose. The pieces could be matched together, and electrotyped, to give a copper-plate counterfeit in a sufficiently perfect fac-simile, to deceive the best judges. The letters Three in the other part of the Note, could easily be extracted and the word Fifty substituted. There is not a particle of security effected against alterations in this plan, so far as the public are concerned; indeed, it appears to be an assistance to the Counterfeiter, by making his trade easy.

Now in regard to the "very large Vignette, or Hemisphere, surmounted by an Eagle," we will remark, that if it possesses any merit, why not let it cover the whole Note, and have *all* the lettering interwoven in the Hemisphere? This would be too much labor, and would take too long a time; and no dies which are already on hand, could be worked in, to fill up, and make a great show. With all its vaunted security, it is but a patch-work Bill, and the twenty or thirty pieces of which it is composed, might be procured of as many Artists in various places without the ulterior design of the Forger being discovered or suspected. The eagle surmounting the hemisphere, is one which has been used so many times, that it possesses little interest, and no security. An eagle very much like it, is in common use on labels, etc. The large hemisphere is produced by a straight line ruling machine, one of which that will execute the work as perfectly, can be bought for fifty dollars.

There will, no doubt, be many more attempts to vary the patch-work

style of the Bank Note, in order to avoid the necessity of abandoning altogether the use of machinery in engraving the plates. Caveats may be filed, and patents applied for, in order to foster the present system, for the convenience of a few Artists. They may amuse the public, and promote the interests of Engravers by enabling them to use their dies again; but they furnish no security against counterfeiting. As long as they are persisted in, the public will be exposed to the attacks of the fraudulent. In this point of view, the continued use of dies and machinery is morally wrong. The only adequate security lies in having all Bank Notes engraved by the hand of the Artist, and with designs covering the whole surface, ONE and INDIVISIBLE.

A CROWNING EVIDENCE IN FAVOR OF OUR SYSTEM.



It will furnish a striking proof of the ease with which the Counterfeiter can perpetrate his fraud, under the present system, to apprise the reader that Plates Three, Four, Five, Six, Seven, Eight, Nine, and Ten, were executed by a son of the writer, a young man seventeen years of age, who could never have succeeded in producing a single one of them if compelled to rely on his own skill as an Artist. The accompanying figure is the genuine work of the same hand, the best that he is able to execute. The figure from which this is copied may be seen on Plate Eleven, Number Twenty-four.

Yet with all his inexperience and inefficiency as an Artist, he can make perfect copies of any Bank Note in this country, by the simple means of procuring a part of the Note from one Artist, and a part from another, and patching them together; without any suspicion of his ultimate object being apparent.

No such royal road to crime is afforded by the system we here propose. IN THIS PLAN, HE WOULD BE COMPELLED TO EXECUTE ALL THE WORK HIMSELF, OR DISCLOSE HIS DESIGN TO OTHERS, EITHER OF WHICH WOULD BE FATAL TO HIS PROJECT.

DESCRIPTION OF PLATES.

DESCRIPTION OF PLATE ONE.

The Transfer Press.

FIGURE ONE.—The Transfer Press, represented in a position to take up in relief, on a cylinder die, the engraving on the bed-piece.

NUMBER TWO—The bed-piece, which is case-hardened.

NUMBER THREE—The steel cylinder, which has been made soft by annealing.

NUMBER FOUR—The foot lever; by means of which the cylinder is pressed upon the bed-piece.

NUMBER FIVE—The hand lever, which forces the beam (number SIX) backward and forward.

NUMBER SIX—The beam, which has a motion backward and forward.

NUMBER SEVEN—The screw, for elevating and depressing the bed of the machine.

FIGURE TWO.—The engraved bed-piece.—The vignette upon it is produced by concave lines cut into the steel by the hand and implements of the Artist.

FIGURE THREE.—A side and front view of the cylinder die. The vignette upon it is produced by pressure upon the bed-piece. The lines, of course, are convex, and after the dies have been case-hardened, are readily transferred again in any required spot in a Bank Plate.

It will be seen that only one half of the cylinder can be used to take up the engraving, as here represented; but an arbor, or mandrel, may be employed in a manner which will permit the engravings to be taken up on the entire periphery of the cylinder.

The honor of the invention of this method of transferring engravings from one piece of steel to another, belongs to our distinguished countryman, Jacob Perkins, whose portrait may be seen on Plate Ten, Figure Ten.

Transfer Presses have been made in various ways. The one represented in the engraving is, we believe, the best, and is the invention of our ingenious fellow citizen, James Bogardus, Esq. The writer has constructed one of these presses for Mr. Wellstood; one for Messrs. Rawdon, Wright, and Hatch, the well-known Bank Note Engravers, of this city; and is now constructing one for his own use. The cost of such a press is about five hundred dollars.

PLATE 1.

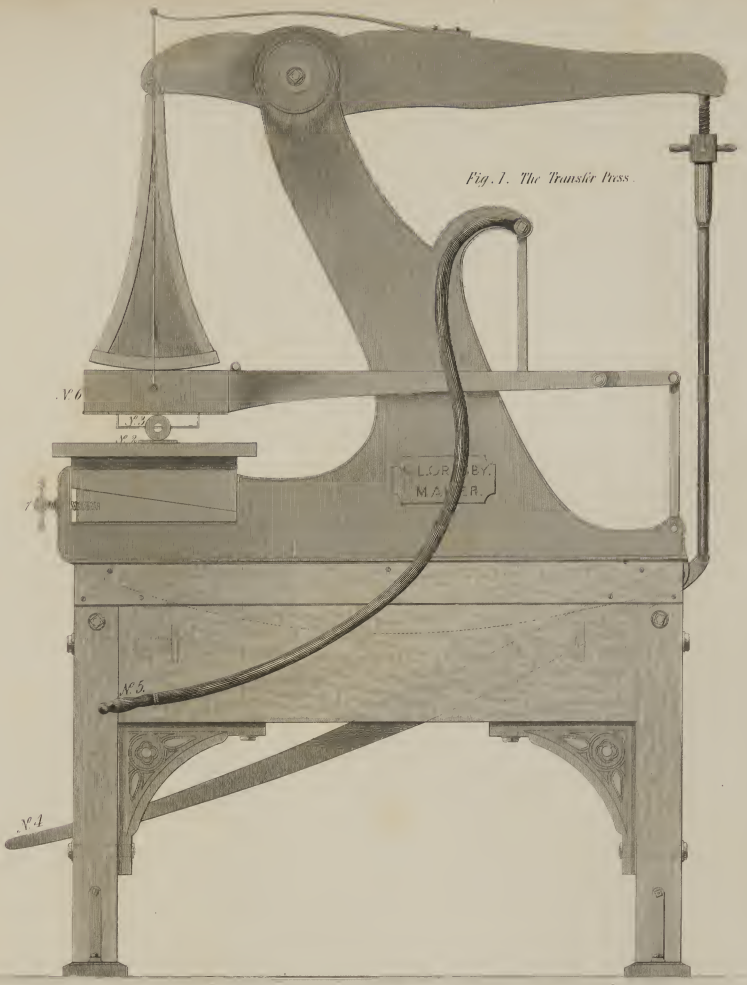


Fig. 1. The Transfer Press.

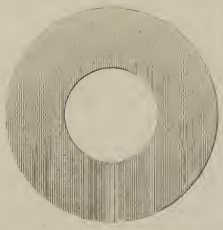


Fig. 3. The Cylinder Die.

Fig. 3.

Fig 2. The Bed piece.

Fig. 1. The Ruling Machine

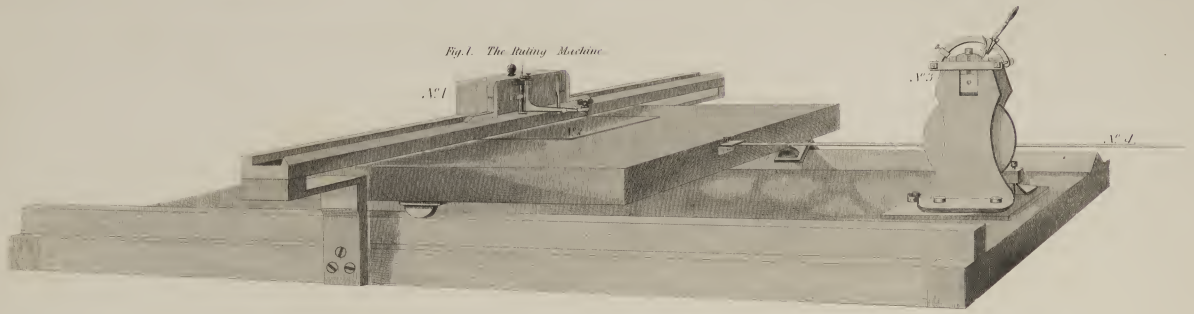
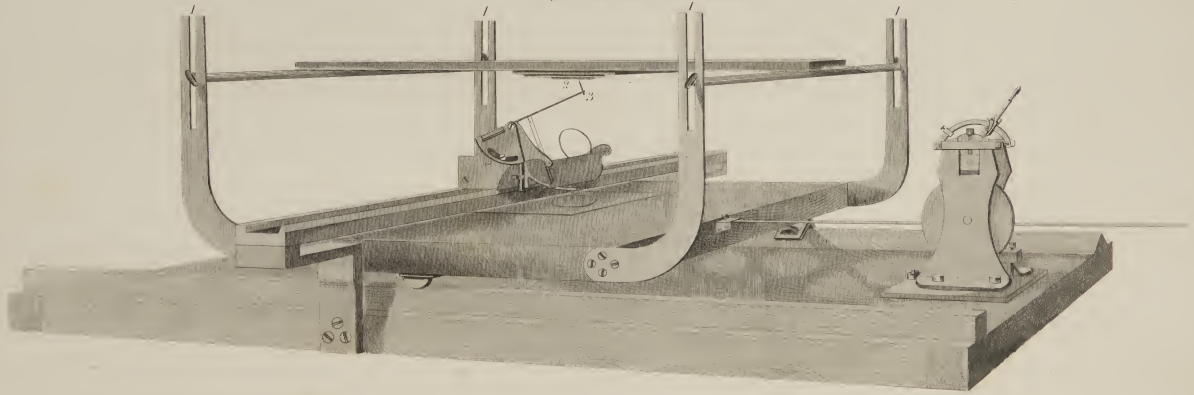


Fig 2. The Medal Copying Machine



DESCRIPTION OF PLATE TWO.

The Ruling, and Medallion Machines.

FIGURE ONE.—THE FRICTION RULING MACHINE, in common use among Engravers. It is represented in a position to execute straight lines. By the application of a brass rule, having an indented edge, waved lines can also be executed by the same machine.

NUMBER ONE—The sliding carriage, which has a motion backward and forward. The use of this is to mark parallel lines, with the diamond point, through an etching ground, on the Plate.

NUMBER TWO—represents the plate as placed upon the bed of the machine, which has a lateral motion. The diamond point is represented as resting upon the plate.

NUMBER THREE—The index, to regulate the width of the lines.

NUMBER FOUR—The connecting bar.

FIGURE TWO.—THE MEDAL COPYING MACHINE, which is made precisely like the plain ruling machine, with the exception of the four upright supporters of the medal, and a very simple tracing apparatus, which is attached to the carriage.

NUMBER ONE—The supporters of the medal.

NUMBER TWO—The medal in a horizontal position, with the face downwards.

NUMBER THREE—The steel point tracer; the uneven motion of which, in passing over the medal, conveys a corresponding lateral motion to the diamond point in passing over the surface of the plate.

The medal, which is being copied, and the plate, are moved along together, by means of the index, and connecting bar.

There are many kinds of ruling machines, some of which are very ingenious and complicated. Those represented in the engraving, are substantially the invention of the writer. Their simplicity and accuracy are generally commended.

The writer has another machine in actual use, which is wound up like a clock, and is made to propel the ruling machine for several hours without the personal attention of any one. The weight employed is about three hundred pounds, and the fall, sixty feet.

DESCRIPTION OF PLATE THREE.

Bank Note Vignettes.

This plate represents the style of vignettes usually employed to embellish Bank Notes. The business of Bank Note Engraving presents a very rare feature in the accumulation of stock. Every new die, for every new Bank, is not only paid for by the Institution in the first order received, but is retained by the Artists, and is used, as occasion requires, for other purposes. Hence, a successful business for a few years is sure to accumulate a large stock; giving the very erroneous impression that a large amount of capital is necessary to the prosecution of the business of Bank Note Engraving, in the first instance.

A particular description of each vignette on this Plate is unnecessary; yet there is one which requires extraordinary notice.

Number Two—The Comptroller's die, representing the State Arms of Michigan. All the States that have adopted the Free Banking system, have had a small vignette stamped on all the Bills of every denomination. The question naturally arises; for what purpose is this done? It cannot be to throw obstacles in the way of the Counterfeiter, because we have already proved that it actually assists him. There must be some reason for the employment of this die, and we think it will be found in this fact; the Comptroller decides what Bank Note Engravers shall be permitted to use it; in other words, he compels the Banks to employ certain Bank Note Engraving establishments which he designates, to the exclusion of all others; and thereby assists in keeping up a monopoly of the business, without the remotest claim to any object having the public welfare in view. He is doubtless urged to this course by parties interested. The great question of rendering Bank Notes secure against forgery, has never been raised in this country. The only questions seem to be, who executes the most beautiful looking Notes, and who charge the highest prices for them.

We are informed that a Comptroller of one of the States asserted, that he "would not allow any half-price establishments to execute Bank Note engraving;" thereby showing, conclusively, that his idea of security against forgery, had a beginning and an end, in the amount to be paid for the work, and in the particular establishments employed to execute it!

Such a resolution on the part of the Comptroller would, of course, receive the hearty approval of the Bank Note Engravers, already established; and if the Comptroller should decide to have two, or three, or more dies, stamped on all the Bills, the Bank Note Engravers would, of course, favor the project, for the reason, that it saves them much labor, and presents additional difficulties to the success of new and rival establishments!

Such resolutions, moreover, would receive the highest applause of Counterfeiters themselves, whose trade is benefited no less, by such favors, than that of the genuine Engravers!!

PLATE 3


1


13


14


2


COMMISSIONED & REGISTERED
IN THE STATE TREASURER'S OFFICE


3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8


5


6


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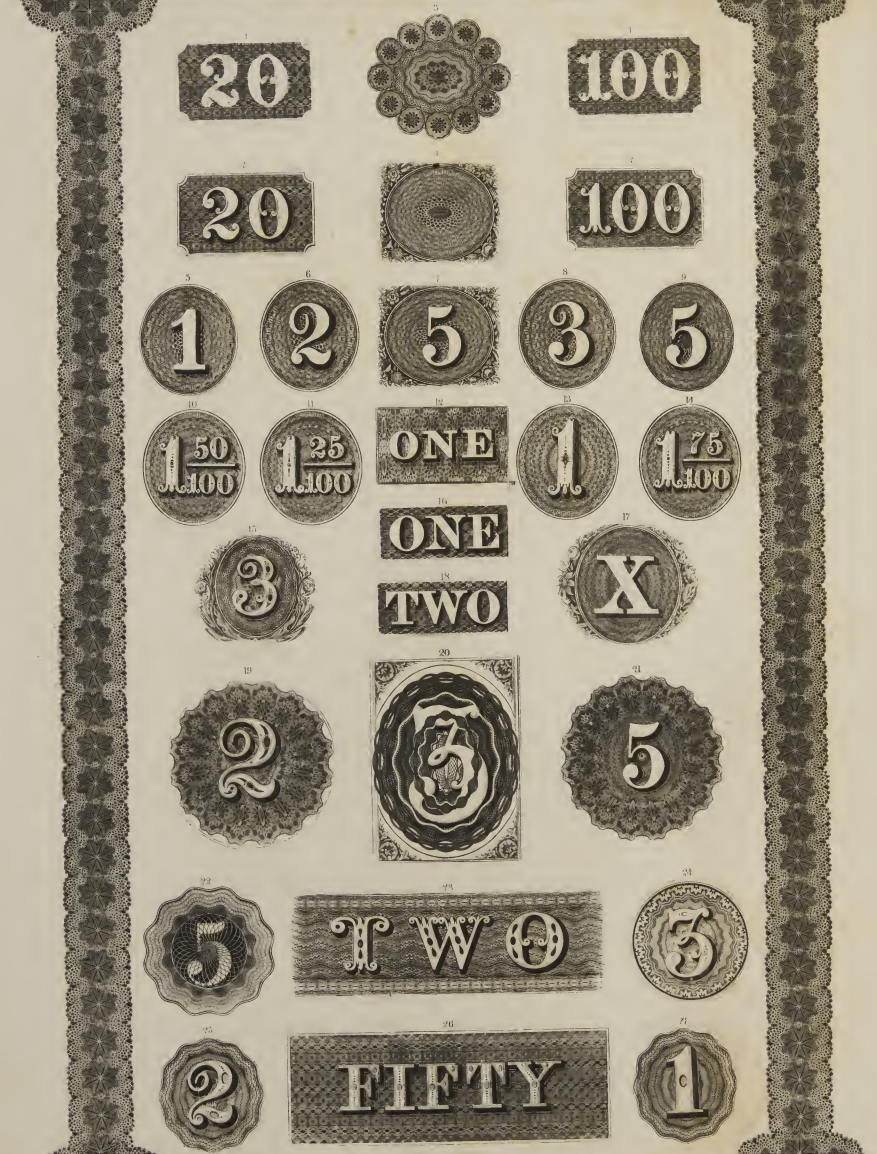
9


11


15


12


16



W. L. Dennisby, New York.

DESCRIPTION OF PLATE FOUR.

Geometrical Lathe Work.

THIS plate represents the Geometrical Lathe work denominations, for Bank Notes.

FIGURE TWENTY—is a representation of the natural production of the machine—that is, the lines are black, upon a white ground. It will be observed that all the other figures have the white line upon the black ground. The method of producing this latter effect, is the following:—The Geometrical Lathe executes the work, as seen in FIGURE TWENTY, on a thin piece of steel; this thin piece of steel is case hardened. Another thin piece of steel, made soft by annealing, is then placed upon it, and both are subjected to pressure in the Transfer Press by rolling a cylinder over the surface. The soft piece of steel will thus receive an impression in relief, of the original lines cut by the machine. If an impression is now taken from it, on paper, by surface or letter-press printing, the lines will appear black, as seen in FIGURE TWENTY; but if an impression is taken by the copper-plate printing process, namely, by filling in with ink, and wiping the surface clean and bright, the white line upon a black ground will be the result, as seen in all the other figures of PLATE THREE.

The process of obtaining finished denomination dies, has already been described in the body of this work.

FIGURE THREE—represents the original oval from which, FIGURES TWELVE, NINETEEN, and TWENTY-ONE were produced,

FIGURES NINETEEN and TWENTY-ONE, it will be observed, are somewhat alike. The first is produced by one impression of the die. The second is the result of the impressions of two dies as follows: the outside portion of FIGURE NINETEEN is taken up on a cylinder, and transferred into the plate, as seen in FIGURE TWENTY-ONE. The Five is then transferred in the centre, by another die. Any denomination may be produced in like manner.

We believe that to Mr. Cyrus Durand is due the highest praise for improvements in the Geometrical Lathe; though much is due Mr. Mason, of Philadelphia; and Mr. James Bogardus, of New York. Mr. Bogardus has constructed a machine which produces a variety of patterns, on the principle of the kaleidoscope.

Yet there is no protection against forgery in any work of this kind—not even so much as would be effected in the most ordinary work executed by the hand of a third or fourth rate Artist. Rows of black dots, however accurate the mechanical arrangement, bear no comparison in respect to the difficultics of imitation, with a portrait, a landscape, or a group of human figures.

It is, in our opinion, exceedingly injudicious to use Geometrical Lathe work on a Bank Note. The specimens which this plate represents, are all genuine Bank Note dies, which, having been transferred on steel plates by the original Bank Note Engravers, indiscriminately, are, we have too much reason to believe, already in the hands of Counterfeiters, together with thousands of others equal to these in workmanship. In proof of this we have only to mention that these specimens were found circulating promiscuously in the community, and were purchased by the writer for a mere trifle:—some, indeed, were furnished us gratuitously. The only remedy now, is, to discontinue the use of this kind of work altogether, for Bank Note Engraving purposes.

DESCRIPTION OF PLATE FIVE.

(SEE FRONTISPIECE.)

Multiplying Geometrical Figures.

A DETAILED description of this plate will be found in Part First of this work.

We will state in addition, that the writer designed and engraved two large specimen sheets for Messrs. Rawdon, Wright, & Hatch, in this style of work, one of which, was made entirely out of a section of one-eighth of an oval.

The use of a Transfer Press is not absolutely necessary for the multiplication of these Geometrical figures. By substituting softer metals, such as copper and lead for steel, the necessity of case-hardening is obviated, and a common hand vice may be substituted for a Transfer Press. Besides, the electrotyping process furnishes a perfect and simple method of producing duplicate copies of any Engraved plate.

It will readily be seen, that if eight sections of an oval, which can be procured by electrotyping are matched together, so as to form a circle, an electrotype copy of the whole may be procured. This process is actually more perfect than the one employed to execute the dies for Plate Five. It is a slower process; but speed is no object to the Counterfeiter. It is a simple process, and does its work silently, and in the dark.

It is, moreover, a process requiring the outlay of a very few shillings in money to procure the necessary implements, and therefore it is peculiarly adapted to the purposes of the Counterfeiter.

PLATE 6.

DESCRIPTION OF PLATE SIX.

Medallion Engraving.

THIS plate illustrates that portion of a Bank Note which resembles BAS-RELIEF.

NUMBERS SIX, SEVEN, EIGHT, NINE, TEN, AND TWELVE, are copies produced by the medallion machine represented in Plate Two. The plaster medals from which they were copied, can be purchased for a few cents, of Italian plaster image venders.

THE BORDER is a copy from a common embossed card.

The other embellishments represent copies from original models prepared expressly for the purpose. The portraits, denominations, etc., which are seen in the centre, were transferred into the plate by separate dies.

When this style of work was first invented, its application to Bank Note Engraving purposes presented great obstacles to Counterfeiters; principally, because of its novelty, the difficulty of imitating it by hand, and the secresy in which the machine was kept. But, the machine has been for a long time in common use. The writer has made many of them, for Engravers in all parts of the country, the price varying from fifty to one hundred dollars each. We have seen Counterfeit Bank Bills, which, we know, involved the use of a machine in their production. This style of work, seen in the counterfeits on the Lancaster Bank, Pennsylvania, is the genuine production of a Medal Ruling Machine. There is, therefore, no longer any safety in employing it on a Bank Note.

The honor of the first invention of this style of work, belongs to Mr. Asa Spencer, of Philadelphia, in conjunction with Mr. Gobrecht, of the Mint. It appears that Mr. S. employed Mr. G. to construct a machine for the purpose of producing waved lines alone, by copying the indented surface of a hammered copper-plate. The latter gentleman accidentally discovered that it was equally fitted to produce copies of coins and medals. This event took place in the year 1818.

DESCRIPTION OF PLATE SEVEN.

A Steel Plate of Four Bank Notes.

Our largest Banking Institutions generally have a steel plate of four One Dollar Bills engraved, for the sake of economy in the printing. The engraving of a One Dollar Bank Note, therefore, costs the Bank Five Hundred Dollars.

PLATE SEVEN—is introduced to show the rapidity of executing, by means of dies, a plate of four Bank Notes on steel.

This plate was transferred by a son of the writer, seventeen years of age, in TWELVE HOURS.

The lettering on this plate, was originally engraved by a gentleman who is now at the head of this department, in one of our largest Bank Note Engraving Establishments.

The oval denomination figure ONE, which is seen on the right, was originally engraved by Durand & Co., and is, we believe, still used on genuine Bank Notes.

The vignette in the centre of the Bill, was copied from a Bank Note; the sea view, and the Steamer, being introduced instead of a Bridge.

A Counterfeiter would find no difficulty in procuring well engraved copies of any Bank Note in this country, by cutting the Note into parts, and employing different Artists to make fac-similes.

Any person who understands the system of constructing our Notes, could proceed, unsuspected, in obtaining piece by piece, from the very best Artists in the country, fac-similes of the various parts of many Bank Notes, which could be carried in his waistcoat pocket. These detached parts, could be fitted together, so as to be locked up in a form, producing a variety of combinations representing the genuine appearance of almost an unlimited number of Bank Bills.

The writer can not refrain from expressing his pride and satisfaction, that though the weakness of this system of engraving has always been apparent to the Artists of this country, from the humblest to the most exalted, yet there has hardly been an instance of an attempt at dishonesty. The Bank Note Engravers, who stand deservedly high in the estimation of Bank Presidents and Directors, sometimes send their steel plates containing four Notes, to the shops of card and label engravers to receive the last finishing touches of an ingenious and honest Artist. There seems to be no distrust of each other in the profession; a circumstance which, it must be admitted, is highly commendable.

ONE

WASHINGTON

ONE

No. A

RAIL ROAD BANK

Will pay ONE DOLLAR on demand

to or bearer ADRIAN, 18

ONE

1

ONE

W. L. Ormsby, New York.

ONE

WASHINGTON

ONE

No. B

RAIL ROAD BANK

Will pay ONE DOLLAR on demand

to or bearer ADRIAN, 18

ONE

1

ONE

W. L. Ormsby, New York.

ONE

WASHINGTON

ONE

No. C

RAIL ROAD BANK

Will pay ONE DOLLAR on demand

to or bearer ADRIAN, 18

ONE

1

ONE

W. L. Ormsby, New York.

ONE

WASHINGTON

ONE

No.

RAIL ROAD BANK

Will pay ONE DOLLAR on demand

to or bearer ADRIAN, 18

ONE

1

ONE

W. L. Ormsby, New York.

ONE

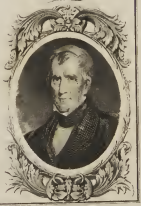
ONE

ONE

ONE

TWO

TWO



DESCRIPTION OF PLATE EIGHT.

Forms of Bank Notes.

THIS plate is designed to show that the works of the best Artists afford no protection against forgery, under the present system of Bank Note Engraving.

The vignettes in the first and last Notes were copied, with some slight alterations, from genuine Bank Note dies, by a young German in the employ of the writer.

The vignette in the TWO Dollar Note is an original design, and an original Engraving by J. W. Casilear, Esq., one of the eminent firm of Toppan, Carpenter, Casilear & Co. This vignette is generally admired, and hence, it has been used, perhaps thousands of times, for various purposes, both on copper, and steel plates.

The vignette immediately under the above, was originally designed and engraved by A. B. Durand, Esq., for the unfortunate Bank Note Engraving Establishment of Durand & Co., whose stock, embracing some of the most beautiful dies that have ever been engraved, was sold at an enormous sacrifice.

The beautiful Lathe work, seen in Plate Six, was purchased by the writer for a mere trifle; in fact we bought a steel Bank plate of four Notes, namely, ONE, TWO, THREE, and FIVE, for Ten dollars; which furnishes us with five different vignettes, and as many different Lathe work denominations.

Bank plates have frequently been offered for sale. The original plates of all the Banks that have failed, or that have wound up business, in the course of the last thirty years, are, doubtless, most of them still in existence. The lettering of these plates can be altered to those of solvent Institutions; electrotype copies of the vignette may be procured, and a set of changeable dies prepared by Counterfeiters in such a way as to enable them to vary their relative positions on the Note at every impression.

Every picture on Plate Eight, might be printed in the place it now occupies on the paper, at separate impressions. With Counterfeiters speed is no object. They can well afford to work a few hours in printing a few Five Dollar Bills—or in substituting a Fifty Dollar denomination, for a One or a Two.

Counterfeiters can now obtain the best genuine Bank Note materials with ease, and at a trifling cost; and thus they can make the services of our very best Artists, who were employed to execute the original work, available for their fraudulent purposes!

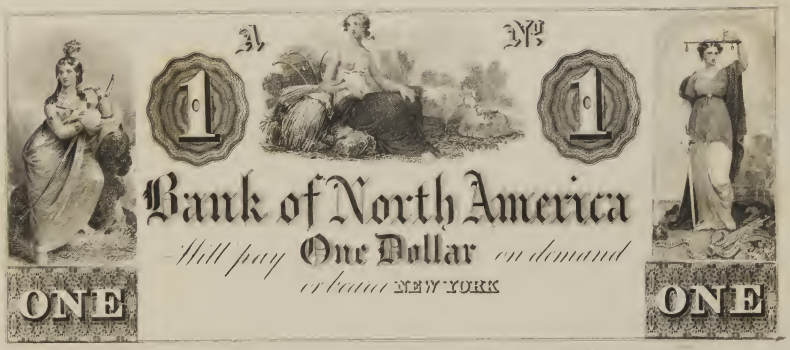
The only remedy is to change the system, and to abandon the use of dies in every shape and form.

31 NY

Bank of North America

Will pay One Dollar on demand

at their NEW YORK



31 NY

Bank of the Republic

Will pay One Dollar on demand

at their NEW YORK


1
4
5
6
7
8
9
9
ONE
10
TWO
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12
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DIEU ET MON DROIT

DESCRIPTION OF PLATE TEN.

Portrait of Jacob Perkins.

FIGURE TEN is a portrait of Jacob Perkins, the inventor of the American System of Bank Note Engraving; which was designed and engraved by the writer, for the New England Bank Note Company, in the year 1834. It is introduced here, merely to show that electrotype copies of copper-plate engravings, can supersede the use of the Transfer Press and dies. The New England Bank Note Company very obligingly furnished us with a transfer from their die, on copper, for ten dollars; but declined to furnish us with a transfer on steel, or with an impression on a steel cylinder at any price. Such a course is pursued to prevent Artists from obtaining duplicates of each others' materials, in a form adapted to Bank Note Engraving purposes; BUT NOT TO PREVENT COUNTERFEITERS FROM OBTAINING ALL THE FACILITIES THEY DESIRE. A Counterfeiter would rather have a copper-plate impression of their die, than an impression on steel, for the reason that a copper-plate is more readily multiplied by the electrotype process, than a steel plate; and therefore is better suited to that purpose.

The plate furnished us was electrotyped by Mr. J. E. Ward, for which he charged one dollar and fifty cents. A space was then cut in Plate Ten, upon which all the other embellishments had previously been transferred. The electrotype plate was then fitted in its present place, and the back of the plate filled in with solder; the whole being printed as here represented, at one impression.

The original plate furnished us by the New England Bank Note Company, being only used to produce electrotype copies, it must be obvious, that we can make a very fair profit in furnishing duplicate copper plates of this portrait, at FIVE DOLLARS EACH.

It must also be obvious that we can collect copper plates, containing Bank Note dies, which the different companies have, from time to time, engraved during the last thirty years, and obtain solid plates in any form or combination resembling a Bank Note.

DESCRIPTION OF PLATE ELEVEN.

Vignettes in Common Use.

The writer has found it necessary in the regular course of business, to display his whole collection of vignettes, and other dies, to his customers for their selection in making out designs, for Checks, Bills of Exchange, Certificates of Stock, Labels, etc. For this purpose a pamphlet form was adopted. The dies were transferred into a series of plates, regularly paged and numbered, from which impressions were printed and bound up together.

This plate is known as Number Three, in the published collection alluded to.

Nearly all the vignettes of this plate were originally employed by Casilear & Co., and Burton, Edmonds, & Co., in Bank Note Engraving. Exact duplicates of many of them may be found on genuine Bank Notes now in circulation.

We might collect hundreds of such vignettes, and publish them, with a concise history of the origin and use, of each particular vignette:—indeed, we have had such a work in contemplation for some time. It would undoubtedly be a very efficient Counterfeit detector; since these plates are so thoroughly scattered over the country, that Counterfeiters obtain them in various ways, and employ them in their fraudulent issues.

Plate No. II

PLATE 12.

Plate No I


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DESCRIPTION OF PLATE TWELVE.

Vignettes in Common Use.

PLATE TWELVE is one of the series before mentioned, known as Plate Number One. All the vignettes on this and the foregoing plate are transferred to order, for Artists in all parts of the country, at a price varying from fifty cents, to five dollars.

When the impression from a die leaves our own hands, we can have no further control over it. The same is true of every Bank Note Engraver. When plates leave his office, all further control over the ultimate use of the vignettes stamped upon them, is entirely lost, and the original Artists are not at all accountable for any use, to which they may be subsequently employed.

With the exception of figures nineteen and twenty-three, the history of every die on this plate, were it possible to obtain it, would form an interesting story.

It may not be amiss to give the names of the Artists who engraved these original Bank Note vignettes. We do so in order to demonstrate that the work of our best Engravers in the patch-work system of constructing Bank Notes, affords no security against fraud; and not in the least as reflecting the slightest blame upon the Artists themselves.

NUMBERS TWENTY, THIRTEEN, ELEVEN, and TWENTY-FOUR, were engraved, many years since, by A. B. Durand, Esq., P. N. A.

NUMBERS TWELVE, EIGHT, TEN, and TWENTY-FIVE, were designed, and engraved, by J. W. Casilear, Esq., now a member of the eminent firm of Toppan, Carpenter, Casilcar & Co.

NUMBER ONE, engraved by V. Balch, Esq.

NUMBERS THREE, FIVE, SIX, and SEVEN, were designed and engraved by Wm. S. Barnard.

NUMBERS TWO, and TWENTY-THREE, engraved by W. L. Ormsby.

NUMBER FIFTEEN is a vignette which the highly distinguished Bank Note Engraving firm of Toppan & Co. transferred on a steel Label plate, which was purchased by the writer. The plate was subsequently cut up, and this die was taken up on a cylinder, and transferred to this Plate.

DESCRIPTION OF PLATE THIRTEEN.

The New System Partially Illustrated.

THIS plate is introduced to show the general appearance of the Notes, on the new plan. They are not designed expressly for the purpose, but are merely sections of magazine plates, which happen to be in the possession of the writer.

The reader must imagine the whole lettering of the Bank Note to appear in white, across the whole design. Suitable places for the signatures of the Cashier, and President, could easily be provided for.

Every Bank would have an entire design, for each denomination, suitable to the name of the Bank, and its locality.

The cost of engraving the plates here represented, was about one hundred dollars each. The work, though not of the most highly finished character, is sufficiently elaborate for a circulating Bank Note. Electrotype copies of such plates can be made for TEN dollars each; a plate, therefore, of FOUR NOTES, of the same denomination, would cost only ONE HUNDRED AND FORTY DOLLARS.

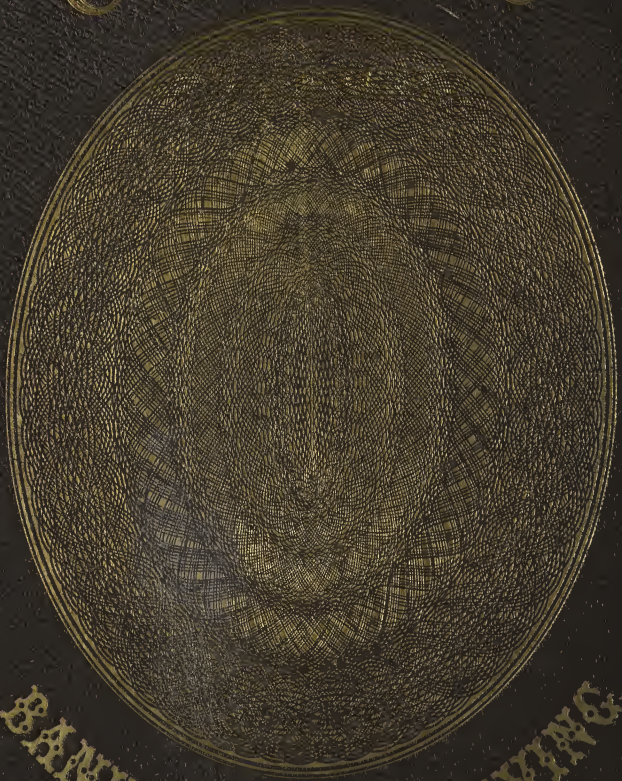
If the Bank decides to have a better quality of work—a higher and still more elaborate finish; the field is open for the exercise of the highest order of talent, ingenuity and enterpise.

Whatever the Bank chooses to obtain, on the principles involved in the new system, IT IS ITS OWN EXCLUSIVE PROPERTY. No Artist will ever attempt to copy the design for any purpose whatever; and as an Artist alone CAN copy it, and as Counterfeiters are not Artists, nor Artists Counterfeiters, the utmost security is attained by adopting the system.

As the engraving of such plates involves the use of no machinery whatever, beyond the common ruling machine, and no other implements than those possessed by any, and every Artist, it follows that any and every Artist is, DE FACTO, a Bank Note Engraver, of more or less merit, according to the talent which he naturally possesses.

PLATE IV

ORMSBY'S



BANK-NOTE ENGRAVING