

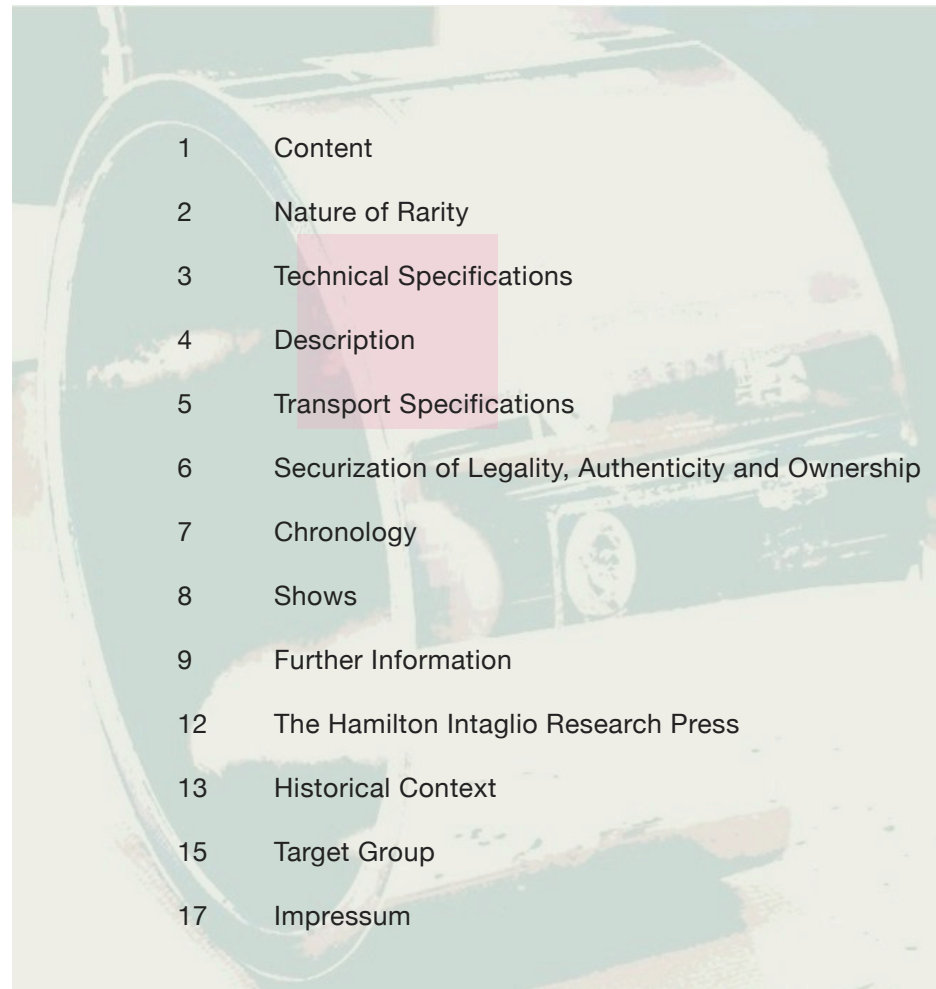
BEP Intaglio Currency Test Plate

the
only
intaglio
currency test plate
to lawfully leave the BEP
Bureau of Engraving and
Printing in modern history



Reversed image

Content



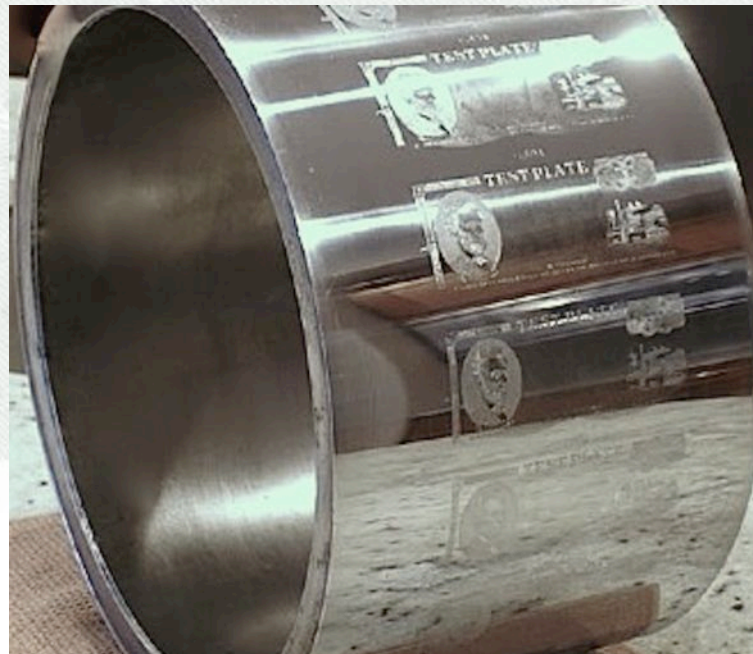
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„...the holy grail of security printing...“

Nature of Rarity

Test for experimental web press run

The Hamilton intaglio research press was the original test bed prior to the development of the web currency press. This plate was the very predecessor of a future dominated by web presses for generations of currency. The plate represents a future paradigm shift in the production of US currency: This plate was the beginning of a plan to produce US currency \$1 dollar bills on a web press. US currency \$1 bills were the beginning and the BEP, Bureau of Engraving and Printing once successful, would produce higher denominations. But first they had to prove they could do it. The object is the only intaglio currency plate to lawfully leave the Bureau of Engraving and Printing in modern history.



Reversed image

**„... an extraordinary part of US currency production...“
Neil Shafer, one of the most renowned US currency experts**

Technical Specifications

TEST PLATE



Reversed image

STEEL INTAGLIO PLATE CYLINDER

18-subject plate:
 with 18 images around
 Outside diameter: 15.625"
 Outside circum.: 49.085"
 Inside diameter: 13.750"
 Inner wall thickn.: .9375"
 Weight: 112.6lbs



Reversed image

CYLINDER SURFACE WITH ENGRAVINGS

material: steel, copper
 surface: engraved copper and nickel
 plated for hardness and durability
 colour: highly polished metallic



Video still

ORIGINAL VHS VIDEO

Titel: „Test Press“. The Hamilton Intaglio Research Press, producing notes
 Year of video producing early 80's during the tests
 Lengst: 11 min. 42 sec.
 usage: funding for a larger Web Curency Press demonstrating a new working principle: a U.S. web currency press



Description



Reversed image

- Developer** Hamilton Tool Company along with Security-Columbia Banknote Co. (SCBco). Period of development: 1982 until 1985.
- Material** steel cylinder with a copper surface. The surface is engraved copper and after engraving, it was nickel plated for hardness and durability.
- Documents** Although the original construction plans (technical drawings, schematics, etc.) for the plate were sold, specifications are available. It is known that all the drawings for the plate were destroyed.
- Press** The press was deconstructed and some parts were sold to another security printer and reconstructed for another application.
- Test Notes** There are probably 50 people whom have printed pieces that came from the plate. The printed pieces, did not have serial numbers, were unlawfully removed from the BEP. One estimates that there are 1.500 - 2.000 printed pieces in circulation today although they are extremely hard to find and collectors do not want to part with them. The last TEST PLATE note to be auctioned was in 2004 through HA.com (Heritage Auctioneers) and it sold for \$100 plus US, so they are very rare.
- Testing** Initially the plate was tested at Hamilton Tool Company, Hamilton Ohio. The entire machine was then shipped to the BEP in the early to mid 1980's Period of testing: 1985 until 1994.
- Ownership** It was located in the BEP's Intaglio Research Room, Room 211 - 14th & C street, Washington D.C. of the main building until the entire system was sold to the private owner.

„...plates were never released from the BEP up to that time almost all currency plates were FLAT sheets.“



Interior of plate and die vault at the BEP left: roll case; right: engraved plates

Transport Specifications



The shipping container comes with lift attachments and collapsible handle



The person removing the plate does not touch the engravings

shipping container specifications

dimensions of container
27 " x 18" x 18" ID
Weight - 28 Lbs.
Make: Hardigg
Military lockable - heavy duty plastic

total weight of the package (plate and container) is approximately 145 LBS

Securization of Legality, Authenticity and Ownership

The most important item to the TEST PLATE is the official document of the „Department of the Treasury Office of Inspector General“, as this includes all important specifications.

The document supplements the official auction papers from the GSA auction in march 1999, when the TEST Plate was sold to the private owner and verifies the sale as legitimate. Several BEP Plate Makers with over 25 years of experience noted their results of inspection and proofment of the TEST PLATE in this document, specially its „costly and time-consuming process, which can only be applied to the production of BEP products.“

The PRIVATE OWNER

“had lawfully acquired the press (of which the plate was a component) (...) from a General Services Administration surplus auction in 1999.“

The TEST PLATE

***is „manufactured by MDL Hamilton Tool Co and last used in 1994.“
It „was produced for the BEP’s Hamilton Web Press.“***

The BEP

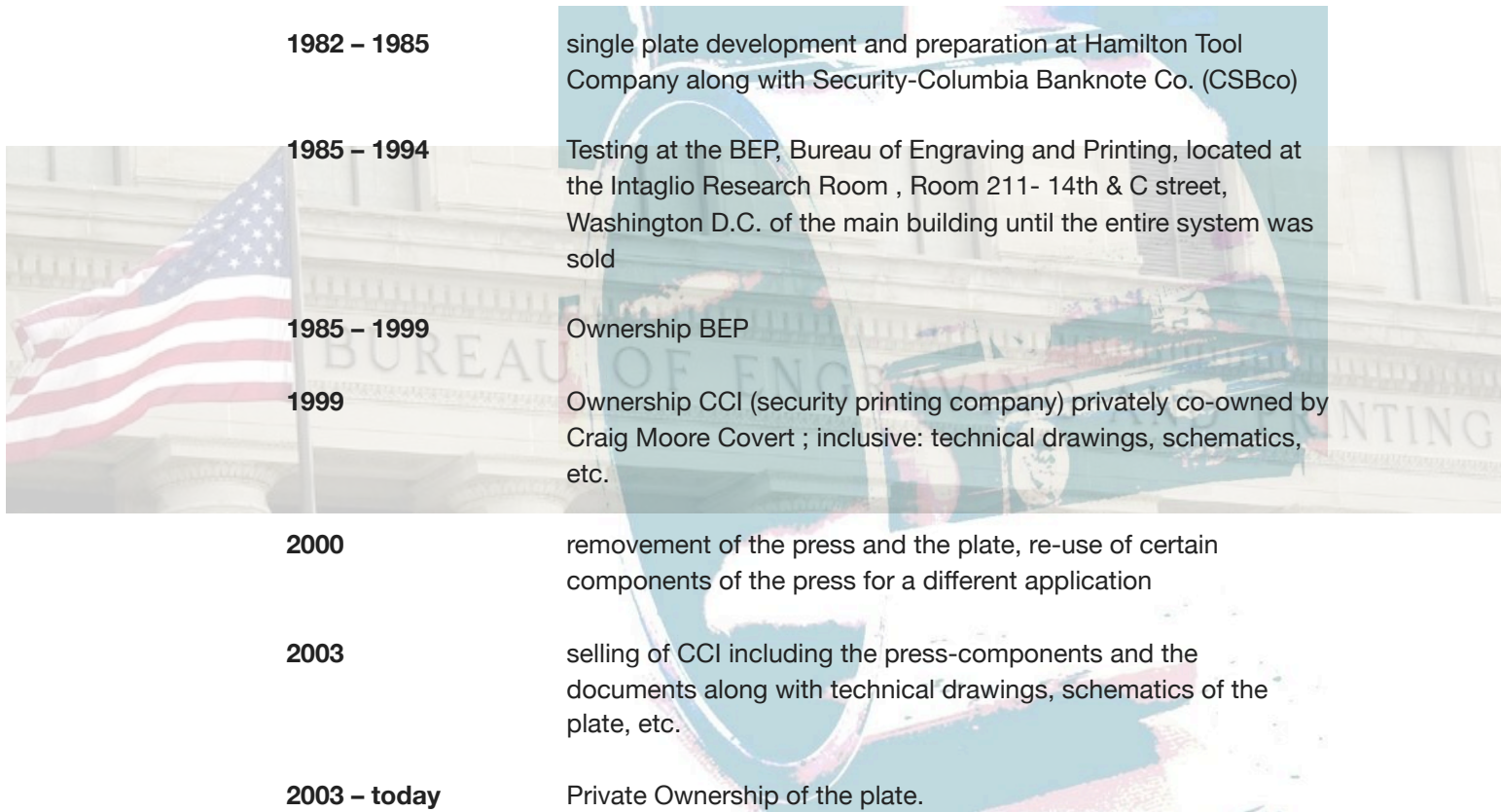
***graduated this item in categories of security as „a CAT 2 item...“ as
„Printing Plates (...) have never been sold (...) to (...) the public.“***



DEPARTMENT OF THE TREASURY
OFFICE OF INSPECTOR GENERAL
WASHINGTON
2010

1789

Chronology



1982 – 1985	single plate development and preparation at Hamilton Tool Company along with Security-Columbia Banknote Co. (CSBco)
1985 – 1994	Testing at the BEP, Bureau of Engraving and Printing, located at the Intaglio Research Room , Room 211- 14th & C street, Washington D.C. of the main building until the entire system was sold
1985 – 1999	Ownership BEP
1999	Ownership CCI (security printing company) privately co-owned by Craig Moore Covert ; inclusive: technical drawings, schematics, etc.
2000	removement of the press and the plate, re-use of certain components of the press for a different application
2003	selling of CCI including the press-components and the documents along with technical drawings, schematics of the plate, etc.
2003 – today	Private Ownership of the plate.

„...a missing piece of a great collection - an extraordinary part of American history!“

Shows

„The oldest form of printing known to man meets the youngest producing - a piece of industrial artwork that could never be purchased...“



Reversed images

The plate was presented to the public in:

November 2010
January 2011

Whitman Coin & Collectibles Baltimore Expo, Baltimore, Maryland USA
FUN Florida United Numismatics Show, Tampa FL USA



<http://whitmancoincollecting.com/category/baltimore-expo/page/2/>
<http://www.numismaster.com/ta/numis/Article.jsp?ad=article&ArticleId=17475>

Further Information

Testnotes

Paper money collectors have been acquiring the green version for years. Colors also used for some printings were brown, blue and black, but these are apparently unavailable.

The green 'web notes' have been offered in many major paper money auctions. Some people were of the opinion that these TEST PLATE web notes were produced as trial pieces on the Web Currency Press at Hamilton Tool Co. in Hamilton, Ohio, but this is not the case.

The printed pieces were unlawfully removed from the BEP.

Since none of the printed pieces have serial numbers, the BEP gave up on trying to locate the removed printed pieces.



Green image plate

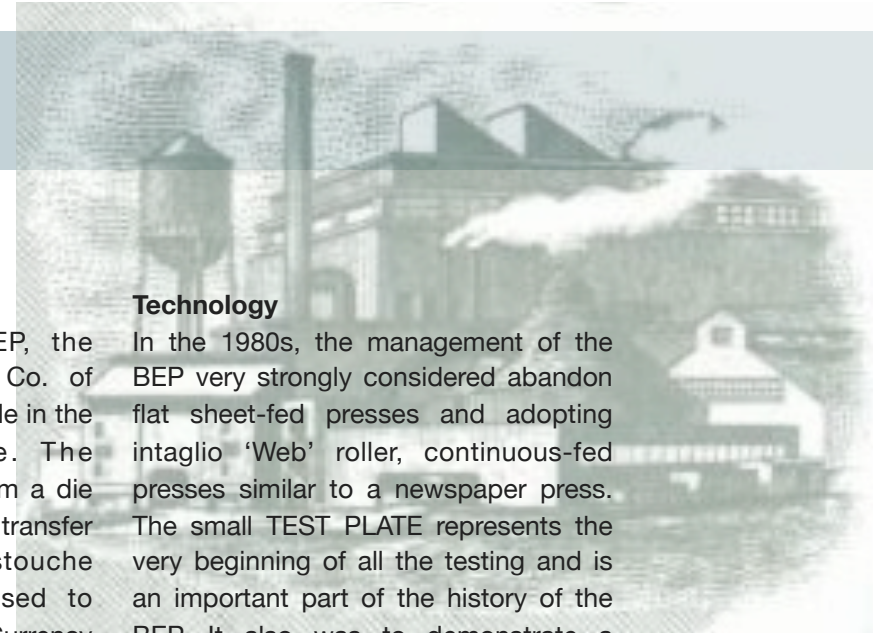
Producer

In conjunction with the BEP, the Security-Columbian Banknote Co. of Philadelphia played the major role in the preparation of this plate. The engravings were transferred from a die with a Destouche custom made transfer engraving system. The Destouche system was subsequently used to transfer FRNs for the Web Currency Press.

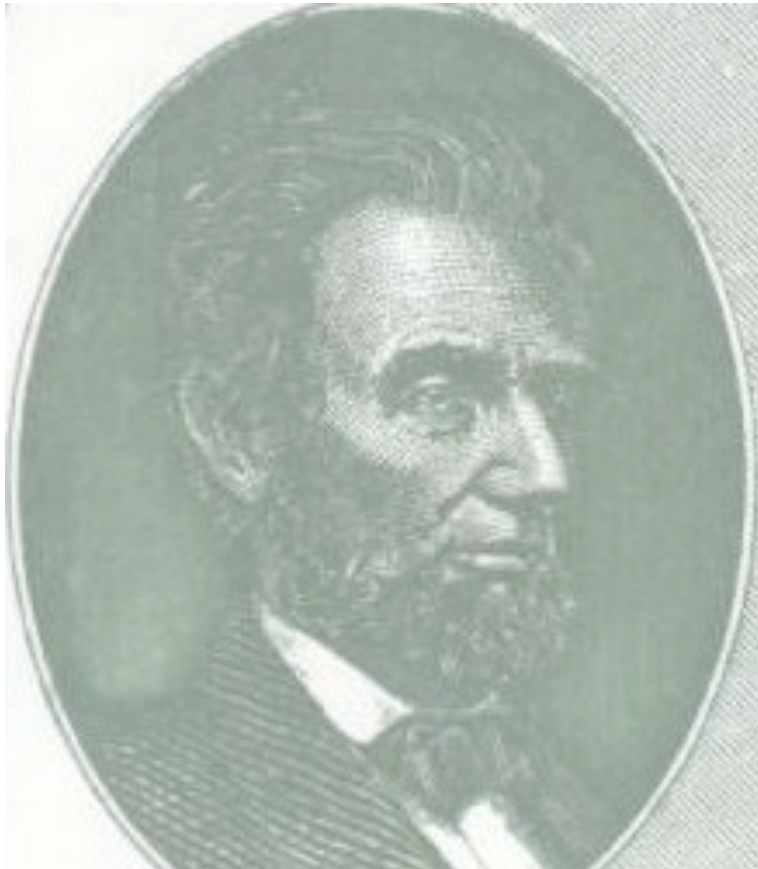
Additionally, during the testing of the Intaglio Research Press, many changes were made to the press including the addition of various components such as a convection dryer, chiller roll stand, and other things to help duplicate conditions expected during operation of the Web Currency Press (actually not built until many years after this press/plate was made). When the BEP abandoned the idea of using a Web press, the test press sat in the BEP intaglio research room and the plate was bolted to the press, when sold.

Technology

In the 1980s, the management of the BEP very strongly considered abandon flat sheet-fed presses and adopting intaglio 'Web' roller, continuous-fed presses similar to a newspaper press. The small TEST PLATE represents the very beginning of all the testing and is an important part of the history of the BEP. It also was to demonstrate a paradigm shift in the production of the world's most powerful currency – on a web press! After proving that it could be done with the small plate, millions of dollars were spent on the test press/plate and later on a larger 'Web Currency Press' for real paper money. For various reasons the BEP continue to use flat, sheet-fed presses.



Brown image plate



Images

The plate images are all the same but with differing depths in groups of three images. These differences help to test an ideal engraving depth to be used for intaglio web print and for later development of the Web Currency Press plates. The depth distinctions also helped with the testing for plate wiping which was done both by paper and water, but not at the same time.

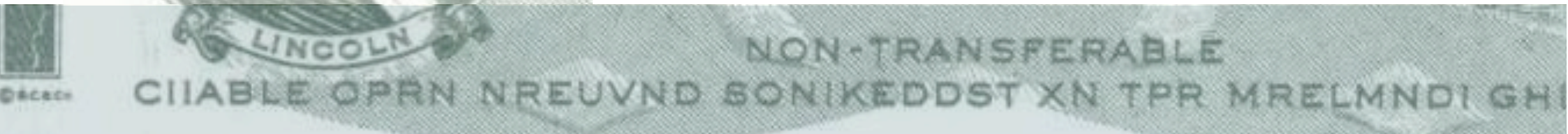
The TEST PLATE employs the portrait of Abraham Lincoln as found on the note. There is no designated face value and only one industrial scene or vignette located at right and can be used nowhere else. Legend starts out with NON-TRANSFERABLE followed by a line of nine nonsense words made of mixed lettering. At the lower left we find the imprint (circle) „C S-C B Co“. There is a number 5 in left margin and number 16804 above at center. No back plate/design was made.

Private Purchase

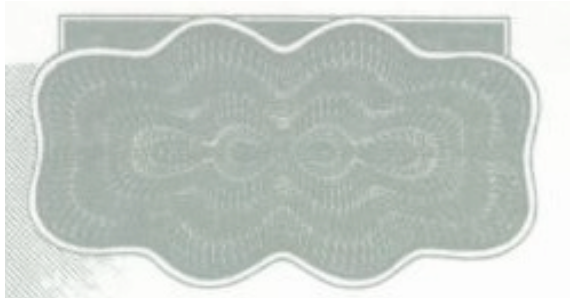
The BEP decided to offer the web test press for sale. The only potential buyers were firms or individuals involved in the security printing business. A particular family owning a manufacturing firm with interests in security printing wanted the press because it contained parts that could be used for their manufacturing purposes.

The buyer got a bill of sale for both the press and the plate. Intaglio plates are the holy grail of security and the BEP will never sell anything like this again.

It is truly one of a kind and is the only plate to lawfully come out of the BEP in modern times.



"It is truly industrial art meets history along with high technology.."



Guilloché



Keystone Symbol

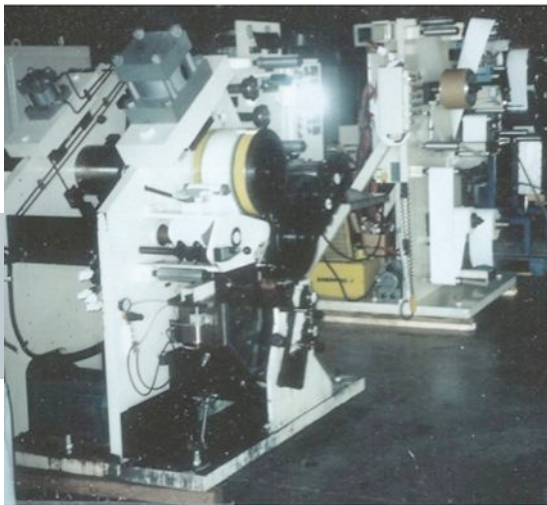


Detail of the plate engravings

Engraving

Engraving depths went from the lightest at five to 10 microns to the deepest at 50-60 microns. Each group of three images had its own number. Group 1 had the lightest engraving and Group 6 the deepest. For a total of 18 engravings the plate had a taper of about 80-90 to 1 from the outside to the inside. This design was used so the plate would fit to the press and to stand heat as well. Many of the TEST PLATE notes now held by collectors have some streaking, almost certainly from testing the water-wipe system. (The BEP uses a water-wipe process for all its intaglio plates.) Part of the development process was to gain knowledge of the water-wipe process for eventual use on the Web Currency Press. Most worldwide intaglio presses use a paper-wipe system. Additionally pieces with “offsetting” show details of notes that came from the end of the press going through the sheeter assembly. The wheels of this unit were caked with intaglio ink because at the time there was no quick-drying technique available.

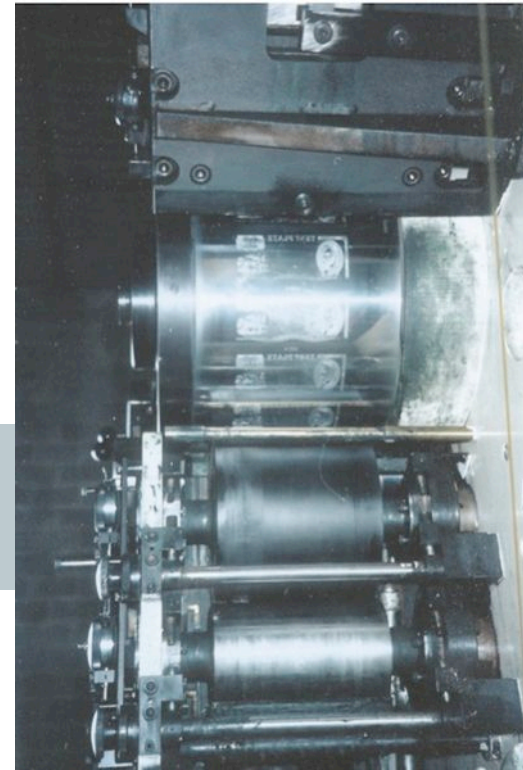
The Hamilton Intaglio Research Press



The entire press system as bought in 1999
On top of the press there is a large gray cylinder, a 50 ton hydraulic ram.

The Hamilton Intaglio RESEARCH PRESS was totally unique. To gain access for testing was of a cantilevered design which made plate changing fairly easy and absolute singular.

The press itself had both paper-wipe and water-wiping systems as well as load cells, spherical roller bearings and many other advanced features never thought of before. To duplicate conditions for the later Web Currency Press, the BEP added a dryer, chill-roll stand, web conditioning unit, additional load cells, and several other advanced features. When the system was removed and prior to disassembly, it was noticed that inker assembly had many "layers" of ink colors including blue, green, black, brown and what appeared to be purple. The press was designed as a two color selective inking unit. This way, they could put down multi-color intaglio inking anywhere on the plate much like the color-ink shifting on us \$10, \$20, \$50 and \$100 notes.



Press, detail within the plate

Historical Context

The Alexander Hamilton WEB CURRENCY PRESS

The large system developed after the testings with the BEP Intaglio TEST PLATE with the Hamilton Intaglio RESEARCH PRESS was the Alexander Hamilton WEB CURRENCY PRESS. This Press was a massive machine and the problems were multiplied by the enormity of it. There are many reasons why it failed. The question remains why it did not work at the US BEP?



BEP's Web Currency Press plate cylinder with engraved \$1 FRN's - this plate weighed close to 1 ton. It was heavy and very large with 96 images or currency notes engraved around the plate.

It's worth mentioning that the Euro currency and parts of it are produced on a web currency press somewhat similar to the BEP's old Web currency press. The Euro currency produced on a web press is successful and vast amounts of currency are produced this way. The European Union is actually considering producing substantially more of their currency on a web press because of advances in technology.

right site: U.S. Essay Proof and Specimen Notes, 2nd edition by Gene Hessler (2004), p. 243,f.

This information has several errors: First, the test pieces were originally developed for testing of the Hamilton Intaglio Research Press many years prior to the „Alexander Hamilton Web Currency Press“. The first piece on the right was a die proof, which was not approved by the BEP. The second piece „16804“ or the TEST PLATE was produced with engravings of differing depths, with the numbers 1 thru 6 corresponding to depth of image in groups of three images for a total of 18 images. These numbers were totally irrelevant to the speed of the press. Finally, the TEST PLATE notes were never issued to the public and were unlawfully removed from the Hamilton Tool Company's Security Print Center as well as the Bureau of Engraving & Printing. There was no overprinting or serial numbers on the notes thus there was no way to track the notes so the BEP

The Alexander Hamilton Web-Fed Press Test Notes

In 1992 a press manufactured by the Hamilton-Stevens Group, Inc. was installed in the BEP; this web-fed press would print face and back simultaneously. After printing a limited number of \$1 notes, Series 1988A, 1993 and 1995, this \$12.1 million press was not adopted. Notes were not printed for each Federal Reserve district. Notes printed by this press have no plate position on the left of the face, and the back plate number is at the upper right.

Prior to this date at least two different test pieces, each with a portrait of Abraham Lincoln, were printed. The piece, identified with die number 16648 (Ex12) and printed in blue, was purchased in a holder from the R.M. Smythe 1991 Memphis mail bid auction. With the "5" superimposed on the "\$" this piece resembles a U.S. Department of Agriculture Food Coupon.

With representatives from the BEP present, one test took place at the Hamilton Tool Company in Hamilton, OH. The "final acceptance run was performed at the BEP facility around June 1991" (Kvederas, p. 12).



Ex12



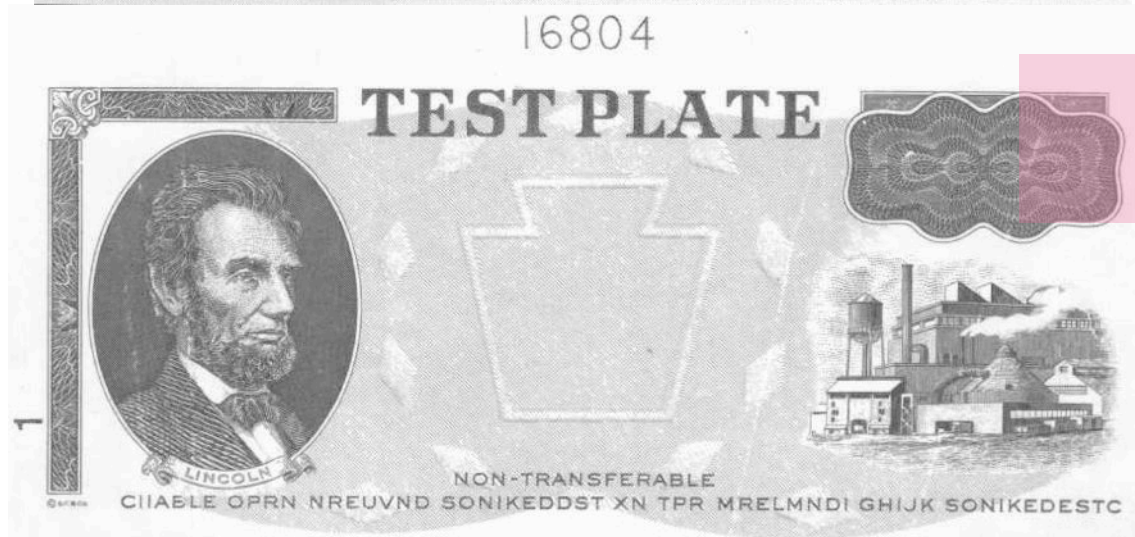
Ex13

The second type, die number 16804 (Ex13), has a keystone symbol in the center and has been observed in three colors—brown, green, and the scarcest, black. In addition there are examples with an imprint only; without ink the latter appears to be embossed. The "CSCBCo" at the lower left suggests that the Security Columbian-Banknote Company was involved in the preparation of this piece.

This type has numerals at the extreme left; Bob Kvederas, Jr. has observed numbers 1 through 6. These numbers probably indicate the depth of the intaglio-printed images as a result of adjusting the speed of the press. The issued notes from this press had soft impressions and were thought by some to be counterfeit. The news media including network news commented on these notes that created some controversy.



This image was produced for testing the Hamilton Research Press but was not approved by the BEP. There are several reasons why this image was not used including a similarity to actual currency (\$5 note) and because of the resemblance to a food coupon. Furthermore - and most importantly - the image provided no area to print a second intaglio color.



Guilloche Security Pattern

The BEP required that several colors be „selectively inked“ on the plate during printing. In the TEST PLATE image, the Guilloche pattern have been „selectively inked“ a separate color to prove „selectively inking“ capacity. Thus the TEST PLATE image was used instead of the \$5 „food coupon“ image.

Target Group

Gift	for extraordinary individuals with great wealth TG: Special single individuals of economy or politics
Monument	for technology-potential of the USA bank houses TG: Bank managers responsible for communication
Symbol	for company's specific mission statements on the truth of engineering TG: International concern managers
Document	for technique museums, representing one important aspect of the printing history TG: Museum directors
Exhibit	for collectors of special historical objects TG: collectors
Work of Art	for artists to sign ("Ready made") TG: artists
Heart-piece	for the usable reconstruction of a new working printing principle of history TG: American Universities of Science and Engineering



The Currency Intaglio Plate inside a special box for transport

„the beauty of the rotating display would be very impressive at any location, convention, home, industry or the liking..“



THE
OLDEST
FORM OF PRINTING
KNOWN TO MAN MEETS
THE YOUNGEST PRODUCING
A PIECE OF INDUSTRIAL ARTWORK
THAT COULD NEVER BE PURCHASED



The Currency Intaglio Plate viewing it in person (not reversed)

16804

TEST PLATE

Impressum

Editorial	Ph.D. Annette Hünnekens
Lectorate	Wolfgang Bsirsky
Photos	owner of the TEST PLATE
Design	M.A.C. mediartconsulting

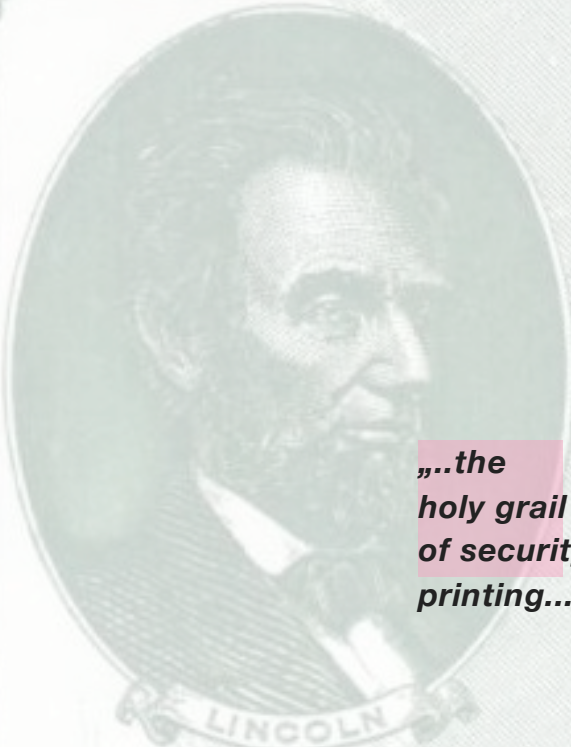
Produced in Garmisch-Partenkirchen, Germany 2011, second edition.

Printed in Ft. Lauderdale, USA 2011

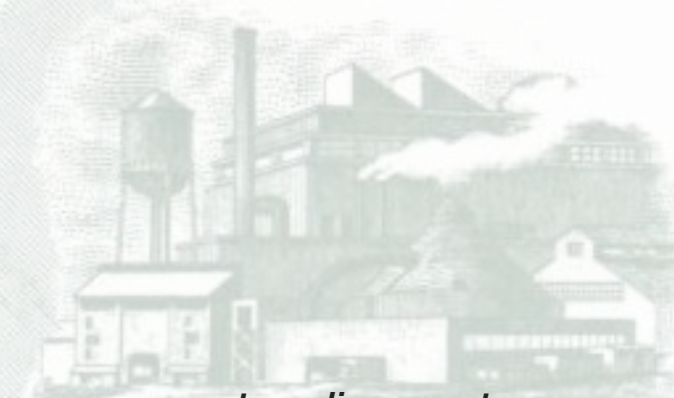
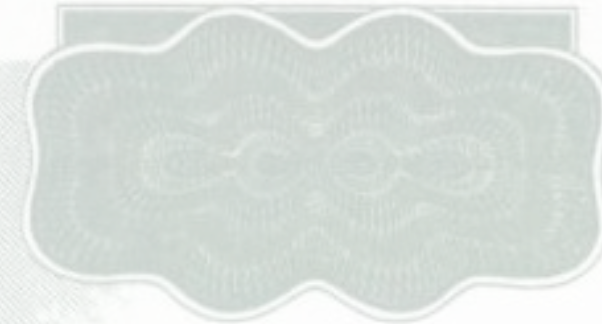
The Text mostly based on the Interview with the private owner by Neil Shafer, US currency expert in 2010.

(First published in: The E-Sylum: Volume 14, Number 8, February 20, 2011, Article 18)

and interviews with the owner by Ph.D. Annette Hünnekens, media art historian, during May 2011.



„...the holy grail of security printing...“



„... an extraordinary part of US currency production...“

Neil Shafer, one of the most renowned US currency experts

NON-TRANSFERABLE
CIIBABLE OPRN NREUVND SONIKEDDST XN TPR MRELMND... DESTC