

*This pamphlet
Should answer
your questions*

662-4131

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VICE PRESIDENT

FARMERS AND MECHANICS NATIONAL BANK
FREDERICK, MARYLAND

GENUINE or COUNTERFEIT?

Most industries focus their research programs on finding easier ways to manufacture their products, but security printers are constantly concerned with developing more difficult and more intricate methods. Genuine currency is distinctive because it is made through a detailed process with special paper and ink. The complicated and careful procedures not only make the currency durable, but also provide protection against counterfeiters.

The most persistent problem for counterfeiters, even with the latest technological knowledge, is the unique style of the artist transmitted in the engraving process to each note. United States currency notes are printed by the engraved intaglio steel plate method, and each feature of the design—portrait, lettering, scroll work, and the lacy geometric patterns—is done by an artist expert in his particular field. No photography enters into the creation of an engraved note, so that a camera can only picture a note and not make an actual duplication of it. A counterfeiter knows that a perfect counterfeit—one that would fool an expert—is practically impossible, so he must adopt a more modest objective. He tends to rely on his camera to produce work that will deceive an inattentive person.

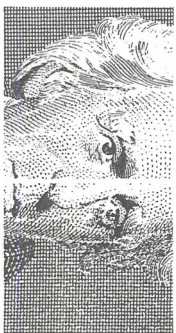
Specially made paper is another important protection against counterfeiters. Its quality is far higher than paper generally available to the public and presents a difficult problem to would-be wrongdoers. Money paper has a particular feel, strength, a good appearance, and printability; it should have long life.

Can you spot a counterfeit? Perhaps the following suggestions, from the United States Secret Service, will show you how it is done.

1. STUDY genuine currency. Look closely at the workmanship of these features.

Genuine

Stands out sharply from background. Eyes appear lifelike. Background is a fine screen of regular, unbroken lines.



PORTRAIT

Counterfeit

May merge with background. Eyes, etc., may be dull or smudgy. Background may be dark, with some irregular and broken lines. Face may seem unnaturally white.

Genuine

Saw-tooth points around rim are even and sharp.



SEAL

Counterfeit

Saw-tooth points may be uneven, blunt, or broken.

Genuine

Figures are firmly and evenly printed, well spaced. On Federal Reserve Notes, prefix letter always agrees with District letter in seal.

SERIAL NUMBERS*
(Counterfeit)

B86733513A

(Genuine)

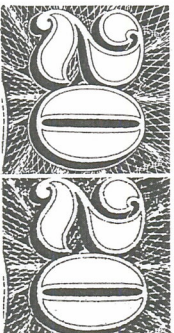
F93310058A

Counterfeit

May be out of line, poorly spaced, printed too light or too dark. Prefix letter may not agree with District letter in seal.

Genuine

Fine crisscrossing lines are sharp and unbroken.



SCROLL WORK

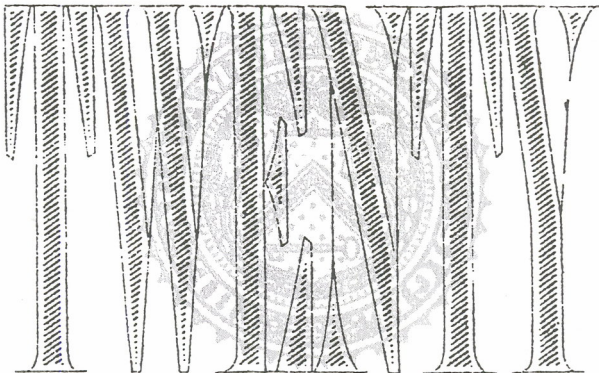
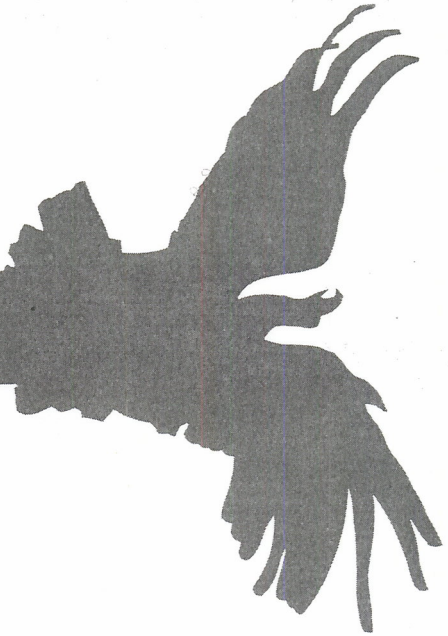
Counterfeit

Lines may be blurred and are often broken.

- PAPER used for genuine notes is very high quality. Small red and blue threads are in it, but may not be visible if the bill is badly worn or dirty. Counterfeit paper may feel different, or may be whiter than genuine paper. Threads may be imitated by fine red and blue lines made by a pen.
 - RUBBING a bill on a piece of paper is *not* a good test. Ink can be rubbed off genuine as well as counterfeit notes.
 - CONSULT an experienced money-handler if in doubt—a bank teller, for example.
 - IF YOU GET A COUNTERFEIT BILL...
 - Write your name and the date on the back of it, so you can identify it later.
 - Write down all the details about how you got it; WHO gave it to you? WHERE did you get it? WHEN did you get it?
 - Contact the nearest U.S. Secret Service office, the local police, a commercial bank, or any Federal Reserve Bank.
- Anyone convicted of passing a counterfeit may be fined as much as \$5,000 or imprisoned for up to 15 years, or both.

*Although shown in black here, serial numbers on Federal Reserve Notes, the most common type of U.S. paper money, are in green. Serial numbers on United States Notes are in red. Treasury regulations prohibit reproduction of these portions of currency in color.

COUNTERFEIT?



Can you spot the mistakes in this portion of a counterfeit?

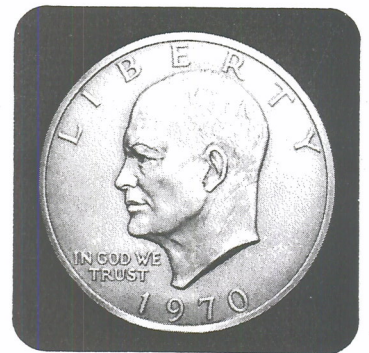
Additional copies may be obtained from:

Research Department
Federal Reserve Bank of Atlanta
104 Marietta Street, N. W.
Atlanta, Georgia 30303

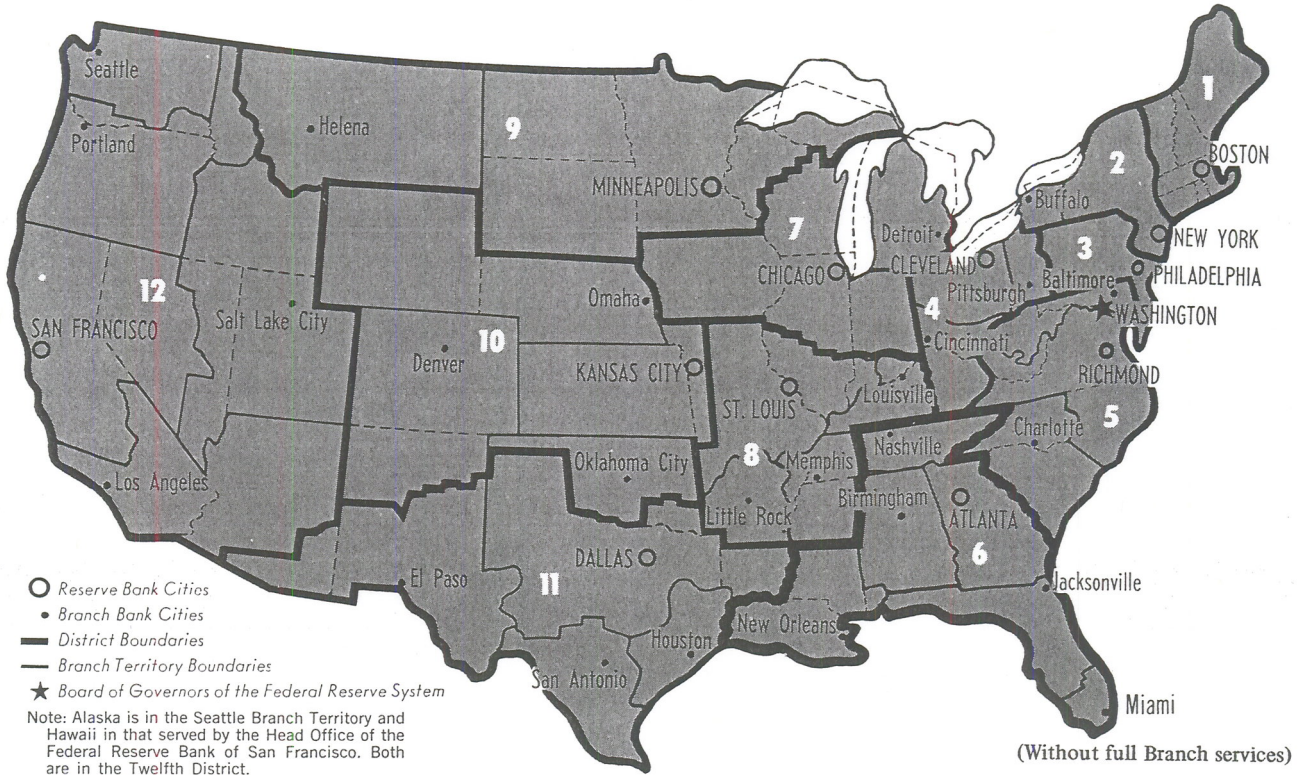
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Fundamental
Facts
About
**UNITED
STATES
MONEY**

A PUBLICATION OF THE FEDERAL RESERVE BANK OF ATLANTA



FEDERAL RESERVE MAP OF THE UNITED STATES



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About the Cover

The cover of this booklet is one of the few places where you'll see the 1970 date on an Eisenhower Dollar. Production of these coins did not begin until 1971. Our cover picture was made from photos loaned to us by the U.S. Mint in Philadelphia. The design on the reverse, or "tails" side, shown here, symbolizes the Apollo 11 spacecraft, named "The Eagle", landing on the moon. Note that both claws clutch olive branches, signifying peace.



Currency and Coin in Circulation

(Does not include money held by the U.S. Treasury and Federal Reserve Banks)

Do you realize how much the amount of currency and coin in circulation has increased over the years? From the figures below, taken from the Monthly Circulation Statements published by the Treasury Department, you can see that we are using more and more money in our economic system.

| Date | Amount in Circulation | Amount Per Capita |
|---------------|-----------------------|-------------------|
| Jan. 1, 1879 | \$ 816,266,721 | \$ 16.76 |
| June 30, 1920 | 5,698,214,612 | 53.18 |
| June 30, 1930 | 4,521,987,962 | 36.74 |
| June 30, 1940 | 7,847,501,324 | 59.40 |
| June 30, 1950 | 27,156,290,042 | 179.03 |
| June 30, 1960 | 32,064,619,064 | 177.47 |
| June 30, 1970 | 54,350,971,661 | 264.62 |
| June 30, 1971 | 58,393,190,429 | 282.06 |

Of further interest are the amounts of various denominations making up the totals. As of June 30, 1971, for example, \$1 bills in circulation totaled \$2,276,524,619, standard silver dollars totaled \$481,674,947, and fractional coin came to \$5,989,912,729.

The largest dollar amount for any one denomination was the \$20 bills--\$19,143,883,764. Next largest was the total for \$100 bills--\$12,595,615,950. The \$9,136,900,320 total for \$10 bills in circulation was more than the total amount of all denominations of both paper money and coin combined in circulation on June 30, 1940.

Current Types of U.S. Paper Money

United States Notes

Now issued in the \$100 denomination only. In the modern small size, they were formerly issued in the \$1, \$2, and \$5 denominations. Just a few of the \$1 notes were issued, and they disappeared from general circulation many years ago. The \$2 denomination was discontinued in 1966, and the \$5 was discontinued in 1968. U.S. Notes make up only a small part of the paper money circulating in this country. The \$100 denomination appeared in 1969, although marked Series 1966. The Treasury Seal and serial number are red.

U.S. Notes, or Legal Tender Notes, have an interesting history dating back to 1862. In the old large size, they were issued in the \$1, \$2, \$5, \$10, \$20, \$50, \$500, \$1,000, \$5,000, and \$10,000 denominations.

Federal Reserve Notes

Issued in denominations of \$1, \$5, \$10, \$20, \$50, and \$100. Formerly issued in denominations of \$500, \$1,000,

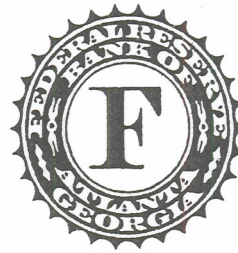
\$5,000 and \$10,000. The printing of Federal Reserve Notes in denominations of \$500 and larger was discontinued by action of the Board of Governors of the Federal Reserve System on December 27, 1945, because of insufficient demand for them. The Federal Reserve Banks continued to issue remaining supplies of these large denomination notes, however, until July 14, 1969, when their issuance was finally terminated.

Federal Reserve Notes are fully backed by collateral which may consist of Gold Certificates, Government securities, or high-grade, short-term commercial paper. Federal Reserve Notes make up over 99% of the total dollar amount of paper money in general circulation in the United States today.

The Treasury Seal and the serial number are green.

The United States is divided into 12 Federal Reserve Districts. A major city in each District is the location of a Federal Reserve Bank, most of which also have branches in other large cities. Each District is designated by a number and the corresponding letter of the alphabet. The District numbers, the cities in which the 12 Banks are located, and the letter symbols are:

| | | | | | |
|---|--------------|---|----|---------------|---|
| 1 | Boston | A | 7 | Chicago | G |
| 2 | New York | B | 8 | St. Louis | H |
| 3 | Philadelphia | C | 9 | Minneapolis | I |
| 4 | Cleveland | D | 10 | Kansas City | J |
| 5 | Richmond | E | 11 | Dallas | K |
| 6 | Atlanta | F | 12 | San Francisco | L |



Federal Reserve Notes carry the letter symbol in the center of the Seal and the name of the Bank inside the circle.

The Federal Reserve Banks issue their own Federal Reserve Notes according to the need in their regions. You can easily tell which Federal Reserve Bank issued a particular note by looking at the Bank Seal, printed in black at the left of the portrait and showing the name of the Bank in the circle; the letter corresponding to the District number stands in the center of the Seal. The District number appears on both ends of the face of the note above and below the center area just inside the engraved border.

For example: The Federal Reserve Bank of Atlanta is headquarters for the Sixth District. Notes issued by that Bank, therefore, carry the sixth letter of the alphabet, F, in the center of the Bank Seal. The New York Bank is headquarters

for the Second District, and on notes issued by that Bank, the second letter, B, appears in the Seal.

Types No Longer Issued

Other types of paper money that have circulated in our nation within comparatively recent times include National Currency, Gold Certificates, and most recently, Silver Certificates. Silver Certificates were issued in the \$1, \$5, and \$10 denominations, and accounted for virtually all of the \$1 notes in circulation until November 26, 1963, when the first \$1 Federal Reserve Notes were issued.

Paper Currency Features

All United States currency is produced in Washington, D. C., by the Bureau of Engraving and Printing, which also designs, engraves, and prints official items such as Government bonds and postage, internal revenue, customs, and savings stamps.

Highly skilled engravers cut the individual features of a note design into steel dies. Rolls are made of these features and, in turn, are used to make a composite design, or master die, of the complete note. The master die is then used in the first of a series of operations leading to the manufacture of press plates. For security reasons, each feature such as the portrait, vignette, ornaments, lettering, and script is the work of a separate engraver specially trained in his particular facet

of the art. The intricate lacy design and borders are produced by means of a geometric lathe.

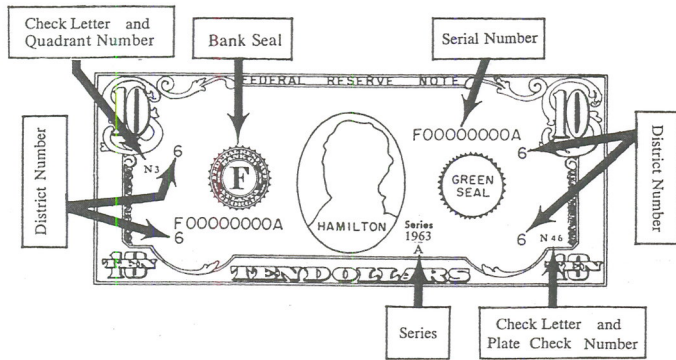
The Bureau takes all possible precautionary measures against counterfeiting. It uses, for example, a specially produced and distinctive paper and manufactures its own inks according to secret formulas. Though the paper is secured from a commercial source, it is illegal for anyone to manufacture or use a similar type, except by special authority. Nevertheless, the American people lose large sums of money each year by accepting counterfeit or "bogus" bills. For your protection, learn the main features of money described in this booklet.

Size

Until July 1929, our currency was 7.42 inches by 3.13 inches, now described as the "old, large-size" or "blanket" bills. Currency printed since 1929 is 6.14 by 2.61 inches, a size easier to handle and less expensive to produce.

Serial Number

The serial number appears in two places on the face of all United States currency—in the upper right and lower left portions. Serial numbers on all currency now in common use are always in eight digits. They also have a prefix letter and suffix letter, unless they are star notes (see p. 6). The letters are considered a part of the number. Thus on United States Notes, the first note of any denomination in a new series will



have the serial number A 00000001 A, and the second A 00000002 A, and so on.

On Federal Reserve Notes, the letter in front of the serial number (the prefix letter) corresponds to that in the Bank Seal. Notes issued by the Federal Reserve Bank of Atlanta are Sixth District notes and the letter preceding the serial number is the sixth letter of the alphabet—F. The notes are numbered in lots of 100,000,000. (Because of the limitation of the numbering system to eight numerals, a “star” note is substituted for the 100,000,000th note.) Each such unit carries a distinctive suffix letter beginning with A and following in alphabetical order through Z, omitting only O because of its similarity to the numeral zero; for example, the serial number

of the first run of any denomination note of each series for the Atlanta Bank will carry the letter combination F – A; the second F – B, and so forth through F – Z.

No two notes of the same kind, denomination, and series have the same serial number, a fact that can be important in detecting counterfeit notes, since counterfeiters usually make large batches of a particular note bearing the same serial number.

Portraits and Emblems

Pictured on the face of our currency are deceased, distinguished American statesmen. The reverse shows famous buildings or monuments or numeral emblems. Portraits and emblems appearing on the various denominations are:

| Denomination | Face | Reverse |
|--------------|------------|---------------------------|
| \$ 1 | Washington | Ornate One and U. S. Seal |
| \$ 2 | Jefferson | Monticello |
| \$ 5 | Lincoln | Lincoln Memorial |
| \$ 10 | Hamilton | U. S. Treasury |
| \$ 20 | Jackson | White House |
| \$ 50 | Grant | U. S. Capitol |
| \$ 100 | Franklin | Independence Hall |
| \$ 500 | McKinley | Ornate Five Hundred |
| \$ 1,000 | Cleveland | Ornate One Thousand |
| \$ 5,000 | Madison | Ornate Five Thousand |
| \$10,000 | Chase | Ornate Ten Thousand |

Bank tellers and others who know how to handle currency use the portrait in assembling and counting it. They assemble each denomination separately and uniformly—FACE UP and TOP UP. In arranging \$1 bills, which bear the portrait of Washington, for example, they do not turn our first President's face down or stand him on his head; rather they assemble the bills so that they are looking Washington in the eye. Handling the money in this orderly way greatly increases their skill in sorting and counting money and in detecting counterfeit and altered notes. All Reserve Banks require commercial banks to arrange their currency for deposit in this way.

Star Notes

If a note is damaged in the process of printing, it is replaced with a "star" note. Star notes are made up with independent runs of serial numbers and are exactly like the notes they replace, except that a star is substituted for one of the serial letters. On United States Notes, the star takes the place of the prefix letter; on Federal Reserve Notes, it takes the place of the suffix letter. The serial number on a star U. S. Note might look like this: * 00000003 B. Or like this on a Federal Reserve Note: F 00000004 *.

Series

6 All our currency bears a series identification: It is found at the right of the portrait near the signature of the Secretary of

the Treasury and shows the year the design was first used on a note. Sometimes a slight change is made in the design, however, that does not constitute a new design or require a completely new engraving plate. In such a case the series year remains the same, but a letter is added to indicate that the design differs a little from previous printings of the particular issue. An example of a minor change might be in the signatures in the event of a change in the office of the Secretary of the Treasury or Treasurer of the United States. The number of minor changes is shown by the appropriate letter of the alphabet. Series 1935C, for example, means that the particular design has been changed slightly on three different occasions.

Note Position Letter, Plate Serial Number

The small capital letter that appears on the face of paper currency in the upper left-hand area and again in the lower right-hand corner is the Note Position Letter. If the note has been printed on one of the Bureau's newer presses that print 32 notes to a sheet, the letter in the upper left-hand area will be followed by a quadrant number. The combination letter and number, in this instance, is called the Note Position Number. This number indicates the position of the note on the printing plate.

The number to the right of the Note Position Letter in the lower right-hand corner of the face of a note is the Plate Serial Number, which can be used to identify the plate from which

the particular note was printed. Appearing on page 5 of this booklet, for example, the Plate Serial Number 46 indicates this was the 46th plate made for that type, denomination, and series of note. The Plate Serial Number for the reverse (green) side of the note appears in the lower right-hand position just inside the ornamental border.



The Great Seal of The United States

The first use of the Great Seal of the United States as part of the design of a currency note was on the \$1 Silver Certificate of Series 1935. It has appeared on all \$1 notes since then. It is on the reverse (green) side.

In 1776, the Continental Congress appointed Benjamin Franklin, Thomas Jefferson, and John Adams to arrange for the preparation of a seal for the United States of America.

This committee and two other committees labored over the design for six years. Finally, the third committee enlisted the aid of William Barton, M. A., the son of a Philadelphia Episcopal clergyman and an authority on heraldry. Mr. Barton created two designs, one of which was assembled and simplified by Charles Thompson, Secretary of Congress, and presented to Congress with descriptions and explanations. Congress adopted the design in 1782.

The face of the Seal, on the right-hand side of the \$1 bill, shows the American bald eagle with wings and claws outstretched. Above the eagle's head is a "glory" containing 13 stars. The eagle's breast holds a shield with 13 stripes—the symbol of a united nation. The right claws hold an olive branch with 13 leaves, representing peace, and the left a bundle of 13 arrows, symbolizing war; the head of the eagle is turned toward the olives, indicating a desire for peace. The words and symbols in "13's" represent the original 13 states.

The top of the shield is said to represent Congress, the head of the bald eagle to represent the Executive Branch, and the nine tail feathers to represent the Judiciary. The Latin motto on a ribbon held in the beak of the eagle, *E Pluribus Unum* (13 letters), means "Out of Many, One."

On the back of the Seal is an unfinished pyramid, a symbol of material strength, an enduring foundation for future growth and a goal of perfection. Above the pyramid is a "glory" or burst of light with an eye inside a triangle,

representing the eternal eye of God, and placing the spiritual above the material. At the top and around the edge, in Latin, is the 13-letter motto *Annuit Coeptis*, meaning "He Has Favored Our Undertakings." The base of the pyramid bears the numerals *MDCCLXXVI*, or 1776, and below is the motto *Novus Ordo Seclorum* or "A New Order of the Ages."

In God We Trust

This motto first appeared on a coin of the United States in 1864 because of high religious sentiment during the Civil War. Salmon P. Chase, then Secretary of the Treasury, authorized use of the inscription after receiving a number of appeals from devout citizens urging that the Deity be recognized suitably on our coins in a form similar to that other nations used on money.

The first coin to carry the motto was the two-cent piece. In 1866, it appeared on the nickel, quarter, half, and silver dollar, and on the \$5, \$10, and \$20 gold pieces. In 1883, it was dropped from the nickel. It was added to the cent in 1909, to the dime in 1916, and it reappeared on the nickel in 1938.

Public Law 140, approved by the President on July 11, 1955, provided that "at such time as new dies for the printing of currency are adopted in connection with the current program of the Treasury Department to increase the capacity

of presses utilized by the Bureau of Engraving and Printing, the dies shall bear, at such place or places thereon as the Secretary of the Treasury may determine to be appropriate, the inscription 'In God We Trust,' and thereafter this inscription shall appear on all United States currency and coins."

The first notes to bear this inscription were the \$1 Silver Certificates, Series 1957, first circulated on October 1, 1957. (Notes of Series 1935G and 1935H, which also bear the motto, actually appeared later.) The last notes to have the motto included in the back design were the \$50 and \$100 Federal Reserve Notes, Series 1963A.

All denominations of both paper money and coin now being issued bear the motto.

How Money Gets into Circulation

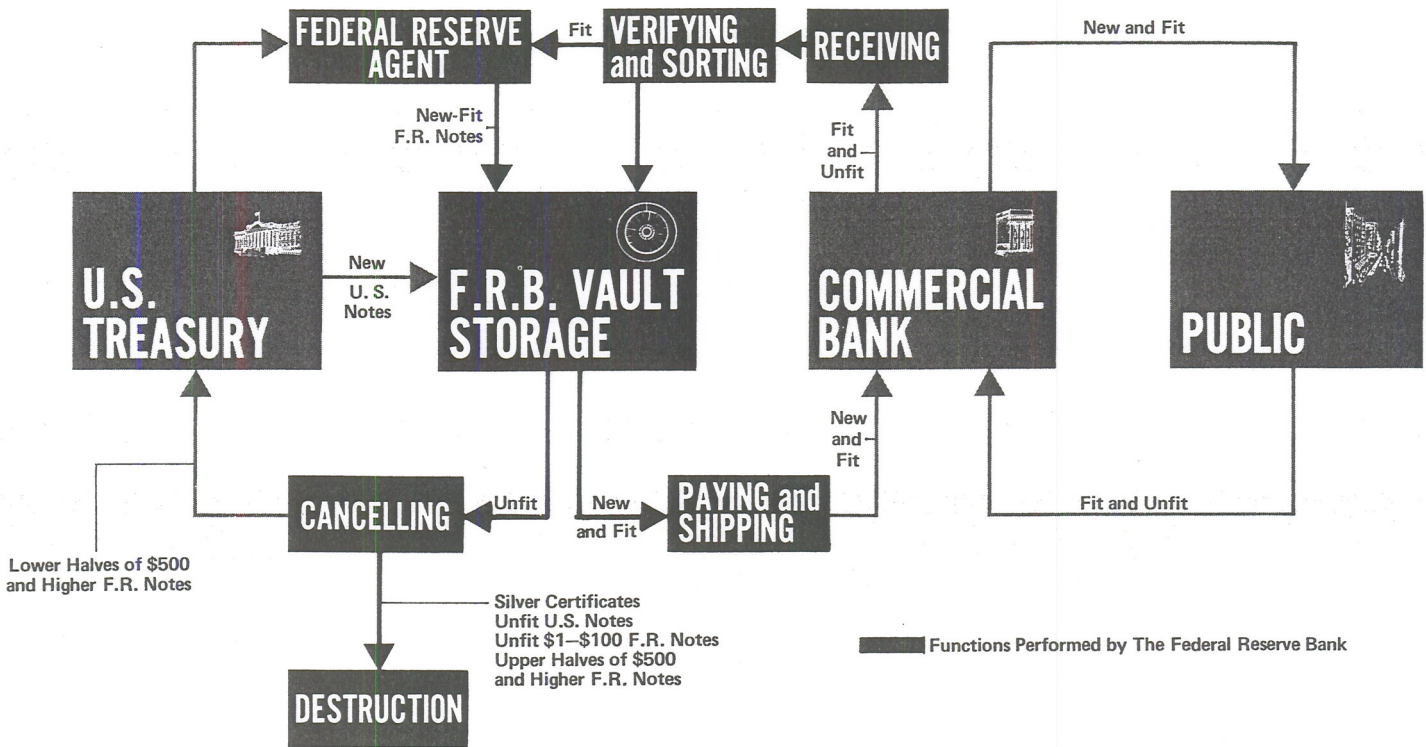
The Treasury ships new paper money and coins to the Federal Reserve Banks; the Reserve Banks pay it out to commercial banks; finally the money gets into the eager hands of the public. Once people spend it at department stores, grocery stores, and elsewhere, the money is redeposited in commercial banks. When the banks find they have too much on hand, they return excess amounts to the "Fed." Look at the chart on the following page and follow the path of money from the Treasury through the Reserve Banks and the commercial banks to the public and back again.

Flow of Currency

From the U.S. Treasury...

Through the Federal Reserve Bank...

To the Public and Back



When Money Wears Out

Like any other commodity, money wears out from handling and is sometimes accidentally damaged or destroyed. The average life of a \$1 bill, for example, is about 17 or 18 months. Larger denominations usually last longer, since they don't circulate as often as the \$1 bill. The Treasury asks the banks to send old, worn, torn, or soiled money to a Federal Reserve Bank to be exchanged for new.

As the Federal Reserve Banks receive money from commercial banks, they count and sort it according to "fit" and "unfit" and store the fit (reusable) money in their vaults until it goes out again through the commercial banking system as it is needed. Currency and coin that is unfit (not reusable) is retired. The retired, unfit currency is then cancelled, verified, and destroyed. Damaged and worn coins are returned to the Mint for melting and making new coins.

Redemption of Damaged Money

Paper money that has been mutilated or partially destroyed may in some cases be redeemable at full face value. If clearly more than half of a note remains intact, it may be redeemed at its full face value. If less than half of its original area still exists, it will not be redeemed unless the Treasurer of the U.S. is satisfied, on the basis of evidence submitted, that the remainder of the note was totally destroyed. (Until January

1, 1971, a mutilated note could be redeemed at full face value only if clearly more than $\frac{3}{5}$ of its original area remained intact, and portions clearly larger than $\frac{2}{5}$ but less than $\frac{3}{4}$ of the original were redeemable at half of their face value. Prior to 1889, mutilated paper money was sometimes redeemed at discounts of 10%, 20%, and so on, depending on the size of the fragments presented.) Redemption of mutilated paper money is handled by Federal Reserve Banks and their Branches.

Mutilated coins, too, may be redeemable, with their redemption value depending on their type, denomination, and the extent of their mutilation. Redemption of mutilated coins is handled by the Treasury Department's New York Assay Office. Coins that are merely bent or worn slick through natural wear are not considered mutilated and are exchangeable at full face value.

Counterfeit Currency

Can you spot a counterfeit? Perhaps the suggestions below from the U.S. Secret Service, will show you how it's done.

1. **STUDY** genuine currency. Get familiar with workmanship and look closely at these features:

PORTRAIT

Genuine

Stands out sharply from background. Eyes appear lifelike. Background is a fine screen of regular, unbroken lines.

Counterfeit

May merge with background. Eyes, etc., may be dull or smudgy. Background may be dark, with some irregular and broken lines. Face may seem unnaturally white.

SEAL

Genuine

Saw-tooth points around rim are even and sharp.

Counterfeit

Saw-tooth points may be uneven, blunt, or broken.

SERIAL NUMBERS

Genuine

Figures are firmly and evenly printed, well spaced. On Federal Reserve Notes, prefix letter always agrees with District letter in seal.

Counterfeit

May be out of line, poorly spaced, printed too light or too dark. Prefix letter may not agree with District letter in seal.

PAPER

Genuine

Paper is very high quality. Small red and blue threads are in it, but may not be visible if the bill is badly worn or dirty.

Counterfeit

Paper may feel different, or may be whiter than genuine paper. Threads may be imitated by fine red and blue lines made by a pen.

2. **RUBBING** a bill on a piece of paper is not a good test. Ink can be rubbed off genuine as well as counterfeit notes.
3. **CONSULT** an experienced money-handler if in doubt—a bank teller, for example.
4. **IF YOU GET A COUNTERFEIT BILL . . .**
 - a. Write your name and the date on the back of it, so you can identify it later.
 - b. Write down all the details about how you got it: **WHO** gave it to you? **WHERE** did you get it? **WHEN** did you get it?
 - c. Contact the nearest U. S. Secret Service office, the local police, a commercial bank, or any Federal Reserve Bank.

Anyone convicted of passing a counterfeit may be fined as much as \$5,000 or imprisoned for up to 15 years, or both.

United States Coin

Our coins and coinage have changed many times since the Coinage Act of 1792, which adopted the dollar as our standard monetary unit and established the country's first Mint--at Philadelphia.

Silver dollars have been minted and issued at various times since 1794. Coinage of this denomination was discontinued in 1935, then resumed in 1971 with the introduction of the Eisenhower dollar. Those minted for general circulation are now completely silverless, while those specially minted for collectors contain 40% silver and are sold at a premium.

Half-dollars virtually disappeared from circulation following the introduction, in 1964, of the Kennedy half-dollar. Those minted that year contained 90% silver and--like all other silver coins--were hoarded during the world-wide silver shortage that became acute at that time. In 1965, the silver content of the half was reduced to 40%, but silver was entirely eliminated from the quarter and dime. The half-dollar remained scarce in general circulation through 1970, despite the fact that huge quantities were produced. Late in 1970, however, a completely silverless half-dollar was authorized; production of these began in 1971, and that coin may soon be a common sight again.

Other denominations in common use today are the twenty-five-cent, ten-cent, five-cent, and one-cent pieces, more familiarly known as the quarter, dime, nickel, and penny.

Denominations used in this country in the past were the half-cent, two-cent, three-cent, and twenty-cent pieces. At one time, the Mint issued a small silver coin called a half-dime. Gold coins in denominations of \$1, \$2.50 ("Quarter Eagle"), \$3, \$5 ("Half Eagle"), \$10 ("Eagle"), and \$20 ("Double Eagle") were also used from 1795 until 1933. During the Civil War, widespread hoarding of coin led to the issuance of paper money in three-cent, five-cent, ten-cent, fifteen-cent, twenty-five-cent, and fifty-cent denominations to substitute for metallic coins. These fractional currency notes became known as "shinplasters."

The Mint

The Bureau of the Mint, also known simply as the Mint, is a division of the Treasury Department and is headed by the Director of the Mint, whose offices are in Washington, D.C. The Philadelphia Mint has been in continuous operation since it first began striking coins not long after it was authorized in 1792. It moved into a modern and highly efficient new plant in 1969.

Branch mints still in operation today are the Denver Mint, which was authorized in 1862 (although it did not begin its coinage operations until 1906), and the San Francisco Mint, which opened in 1854. The San Francisco Mint discontinued its coinage operations in 1955. It resumed them on a limited basis in 1965, now officially known as an Assay Office.

In the past, Branch Mints have also been operated at Carson City, Nevada, Charlotte, North Carolina, Dahlonega, Georgia, and New Orleans, Louisiana. The Carson City Mint was in use from 1870 through 1893. Those at Charlotte, Dahlonega, and New Orleans began operations in 1838. The Charlotte and Dahlonega Mints produced only gold coins, and their operations were suspended in 1861 because of the Civil War. Neither reopened. The New Orleans Mint was seized in 1861 by the Confederacy and operated for a time as a Confederate mint. It was reopened in 1879 by the Federal Government and coinage operations were carried on until 1909, when they were finally discontinued.

Design of Coins

Selection of designs for our coins is made by the Director of the Mint, with the approval of the Secretary of the Treasury, although Congress may prescribe a coin design. The design of a coin may not be changed oftener than every 25 years unless Congress determines otherwise. In December 1963, for example, the 88th Congress authorized production of a new 50-cent coin to show the portrait of the late President John Fitzgerald Kennedy. The minting began in 1964 and will continue for at least 25 years, unless Congress makes another change. The design it replaced had not been in use for 25 years, but Congress authorized the early change as a memorial to the late chief executive of the nation.

All currently minted coins honor past U.S. Presidents. They are the Lincoln one-cent piece adopted in 1909, the five-cent piece honoring Jefferson adopted in 1938, the 25-cent piece with Washington's profile first minted in 1932, the Franklin D. Roosevelt dime introduced in 1946, the above-mentioned Kennedy half, and the Eisenhower dollar discussed earlier.

Commemorative Coins

Commemorative Coins, as the term implies, commemorate an anniversary or historical event, usually at the local level. They are authorized for worthy causes by special acts of Congress, manufactured in limited quantities, and sold at a premium by private organizations sponsoring the issues.

The first commemorative coin was minted in 1892 as a means of helping finance the World's Columbian Exposition in Chicago. Congress appropriated two and a half million dollars for half dollars to be issued as a souvenir of the Exposition, but since twice that amount was needed, it was decided to sell the coins at a premium—double their face value. It worked. The coins brought five million dollars.

Since that time, 52 commemorative coins have been issued, but, because they sell at a premium, not many are circulated as regular coin.

In recent years, several commemorative coin bills have been introduced but Congress has not passed them.

The Penny and Nickel

The penny—more properly called the cent—is currently made of an alloy of 95 percent copper and 5 percent zinc. The nickel is made of an alloy containing 75 percent copper and 25 percent nickel. A diagram of the various steps in the minting of cents appears on page 16 of this booklet. The minting of nickels is essentially the same.

Dimes, Quarters, Halves, Dollars

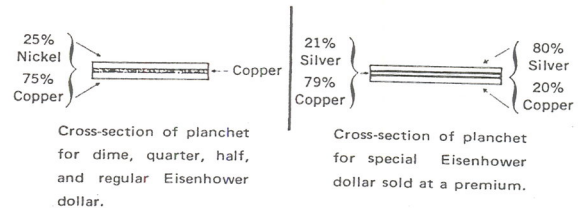
The Coinage Act of 1965 authorized a basic change in the composition of dimes, quarters, and half dollars. Formerly these coins contained 90% silver. Because of a growing world-wide silver shortage, it became necessary for the United States to reduce the silver content of its coins drastically. To do this, silver was eliminated from the dime and the quarter, and the silver content of the half was reduced to 40%; in 1970, total elimination of silver from the halves was authorized, and the silverless halves first appeared in 1971. At the same time, two versions of the Eisenhower dollar were authorized—one silverless and the other containing 40% silver—and both appeared in 1971.

The minting of the new “clad” coins is much the same as that of cents and nickels, except that the strip from which the blanks or planchets are punched consists of three layers permanently bonded together. The preparation of this strip and the salvaging of the scrap are, obviously, somewhat more

complicated procedures than those shown in the diagram on page 16 of this booklet.

The strip used for the new silverless coins consists of a copper core faced or “clad” by layers of the same alloy that is used for nickels—75% copper and 25% nickel.

The strip used for the special Eisenhower dollars consists of a core containing about 21% silver and 79% copper clad by layers containing 80% silver and 20% copper. The strip has an overall silver content of 40%, and is used only for the Eisenhower dollars that are specially made for sale at a premium to collectors.



Except for the Eisenhower dollar, the clad coins retain the designs used on their predecessors. All clad coins minted bore the 1965 date until August 1, 1966, at which time production of coins bearing the 1966 date was begun and the practice of dating coins in the year of their manufacture was resumed.

The composition of clad coins is such that they duplicate the electrical properties of the old 90% silver coins and thus

can be used interchangeably with them in coin-operated machines. The silverless coins are 9.3% lighter than their 90% silver counterparts.

Mint Marks

The Coinage Act of 1965 specified that no mint marks would be authorized for five years. Late in 1967, however, Congress authorized an early resumption of their use, and they reappeared on our regular coinage in 1968.

How Coins are Made

The first step in the minting of coins is the production of strips of the appropriate alloys of the proper thickness. The production of strips and subsequent operations in the minting of cents are graphically shown on the following page. The production of strips for nickels is the same, except that the metals melted together in the crucible are copper and nickel in the proportions of 75 to 25. In the case of strips for clad dimes, quarters, halves, and dollars, the three layers are produced separately, then fused together. The strips are then fed into blanking presses. These presses cut round blanks (planchets) of the approximate size of the finished coin. The blanks are run through annealing furnaces to soften them; next through tumbling barrels or rotating cylinders containing chemical solutions which clean and burnish the metal; then they are washed and put into drying machines.

The blanks then go to the milling or "upsetting" machines, which produce the raised or "upset" rim.

Next is the important operation of the stamping or coining press. The blank is held firmly in place by a ring, or collar, as it is struck under tremendous pressure; for example, one-cent pieces require about 40 tons of pressure, the larger coins require proportionately more. Upper and lower dies stamp the design on both sides of the coin at the same time. Grooves inside the ring holding the blank form the "reeding" or ridges on the rim of finished coin.

The productive capacity of the Mints has been greatly expanded in recent years. This fact, plus the large existing stocks of coins, indicates there is virtually no chance of a coin shortage in the foreseeable future.

