

# OUTFOXING THE COUNTERFEITERS

**1760**  
Colony of Pennsylvania

Punishment spelled out to scare off forgers

Highly intricate engravings

Patented green ink, to prevent black-and-white photographic copies

Unique leaf print, made from a plaster cast of a real leaf

**1863**  
Federal government

Back of the bill warns that counterfeiting is a felony, punishable by a \$5,000 fine, 15 years imprisonment, or both

Colored ink and ornate engravings

Proprietary paper, with colored threads

Simple design, with plenty of empty space, to make the bill easily recognizable

**1914**  
Federal government

The new \$100 bill is the most sophisticated attempt yet to combat forgery. Since colonial times, the U.S. has engaged in a cat-and-mouse game with criminals and foreign governments eager to pass off brilliant fakes. **By Stephen Mihm**

**I**n 1690, the Massachusetts Bay Colony became the first government in the Western world to issue paper money. Some of the first counterfeiters of paper money followed soon after. Within a generation, the authorities were engaged in a running battle against forgers, whom they tried to deter by various punishments: cropping their ears, for example, or hanging them. Many colonial notes soon came with a pointed warning: "To counterfeit is DEATH."

Last week, in a ceremony attended by Timothy Geithner and Ben Bernanke, government officials showed off a high-tech \$100 bill designed to frustrate 21st-century counterfeiters. It features the pleasing pastels already seen on lesser denominations, as well as a ghostly image of a quill pen and a copper inkwell containing a bell that appears and disappears depending on the angle from which it's viewed. Most startling of all, the front of the bill contains a vertical purple strip that contains shimmering images of the number "100" and the Liberty Bell, all of which miraculously appear



The redesigned \$100 bill, above, has security features like microprinting, color-shifting objects and a 3-D ribbon.

to move when the bill is tilted in one direction or another.

With well over a half trillion dollars in "Benjamins" in circulation around the world, the existing \$100 bill has attracted the attention of countless counterfeiters. Most have been sophisticated criminal gangs, but there's also a consid-

erable (if controversial) body of evidence linking the most realistic and dangerous counterfeiters—the so-called super-notes—with the North Korean government. These twin threats, more than anything else, have driven this latest eye-popping change to our money supply.

If history is any guide, it won't be the last. Paper money in this country has followed a familiar trajectory: new designs, new dollars and, eventually, new counterfeiters.

It's perhaps appropriate that Benjamin Franklin appears on the most valuable denomination of dollar in circulation. He designed the country's first money: the Continental dollars issued during the American Revolution to pay the costs of the war. Franklin didn't put his own head on the currency; rather, he used a mysterious anticounterfeiting device

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feiters and false bank notes are so common, that forgery seems to have lost its criminality in the minds of many."

The banks fought back, commissioning ever more elaborate notes that contain many of the same anticounterfeiting features that survive today: special inks, watermarks and proprietary paper recipes. Engravers also sought to create ever more elaborate, intricate designs that would defy imitation. Yet counterfeiters still managed to surmount every technological obstacle thrown their way.

Indeed, new technology could cut both ways. Like the digital technologies of the 21st century, the invention of photography opened up new vistas in counterfeiting. Until the 1850s, most bank notes came in one color: black. But a proliferation of photographic counterfeits prompted the creation of new colorful inks, including the invention in 1857 of a new kind of green ink that used chromium trioxide. The delicate green lines printed in this ink could not be replicated with the black-and-white photography of the day; it would appear as a black mass when photographed.

The Civil War began four years later, and the cash-strapped Union quickly got over its constitutional objections to paper money, issuing a new national currency that used this "Patent Green Tint." The new notes became known as greenbacks. They soon circulated alongside another kind of national currency colored the same shade of green: the "national bank notes," issued by banks that obtained federal charters and the right to issue money designed and controlled by the federal government.

The Confederacy issued its own paper money. Lacking skilled engravers and the necessary supplies, the "grayback" looked awful and followed the fate of the Continental, losing its value over the course of the war. Ordinary counterfeiters considered them unworthy of imitation, but enterprising and patriotic Unionists churned out millions of dollars' worth of counterfeits while the federal government looked the other way. Many of these knockoffs had the distinction of being better looking than the originals.

The war marked a serious watershed in the nation's monetary history—and in the history of counterfeiting. Out

breathlessly described as a "silent, unsleeping branch of the Government, which never appears in the public eye except in the act of pouncing on a victim and which never forgets a crime or a criminal."

By the early 20th century, the currency was relatively safe from counterfeiters. It had also become more uniform and simple, particularly after the creation of the Federal Reserve in 1913. Ben Franklin made his debut on the \$100 bill, and the nation's currency became increasingly important, eventually displacing the British pound as the world's dominant currency. Unfortunately, that rise attracted the attention of foreign governments. In a vivid demonstration of the old adage

the American...  
counterfeits of the pound went into limited circulation, they did little damage to Britain, and the project to counterfeit the dollar collapsed in the waning months of the war.

Few successful counterfeits of the dollar gained widespread circulation in the postwar era, and for decades the appearance of the \$100 bill remained largely unchanged. In the late 1980s, the so-called supernote made its appearance: highly accurate \$100s (and some \$50s) that baffled investigators. The remarkable frequency with which North Korean diplomats were caught carrying the notes led many to suspect the secretive regime. During the George W. Bush administration, the U.S.

shifting "100" and the new inside the inkwell—the effect is roughly comparable to an apartment door equipped with countless locks and latches. It screams "secure," but the sheer abundance of security devices suggests that counterfeiters have been all too successful in breaching earlier defenses.

Crane promises that Motion will impose "tremendous barriers against a quality counterfeit." Perhaps. But it's a sure bet that somewhere in the world, counterfeiters are studying the new bill, looking to crack the code. And someday they will.

► See a slideshow tracing the evolution of the \$100 bill at [WSJ.com/Lifestyle](http://WSJ.com/Lifestyle).



The Bridgeman Art Library/Getty Images (Newton)

## Making Funny Money

Some famous counterfeiting ploys—by governments and criminals—through history.

- Governments have long forged currency as a war tactic. In Renaissance Italy in the 1470s, Duke Galeazzo Sforza of Milan (above left) printed counterfeit Venetian ducats, to undermine the economy of the rival city-state.
- In the 1690s, Isaac Newton (above right) took a job as warden of the British mint, where he prosecuted and sent scores of counterfeiters to the gallows. To catch them, he kept a network of spies across London and interviewed informants himself in pubs. His biggest catch was the notorious William Chaloner, who claimed to have reproduced £30,000 (the equivalent of about \$7 million today) and was hanged in 1699.

- One of the largest frauds in history is the Portuguese bank-note crisis of 1925. A con man named Alves Reis convinced a British printer that he represented the Bank of Portugal, and had them print the modern equivalent of about \$125 million in bills. His scheme went unnoticed for nearly a year.
- In 1926, a group of Hungarians (including Budapest's chief of police) pleaded guilty to printing millions of French francs, partly to fund political activities and avenge territorial losses suffered by their country. However, the quality was poor, and they were soon caught by French detectives.