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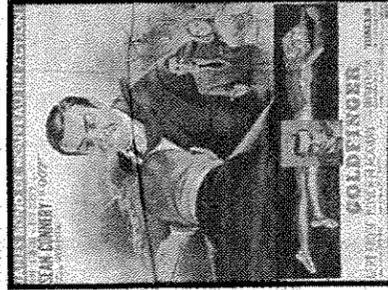
'Goldfinger' preview for Treasury officials gives birth to Mint, General Motors roller press testing

Workers on joint project share recollections of 1960s experimental pieces

By **Eric M. Larson**
Special to COIN WORLD

No published account, recent or past, of the various experimental coins struck on the General Motors roller press includes detailed viewpoints of "hands-on" insiders — the people who created this unusual device.

My father worked at the General Motors Technical Center in Warren, Mich., where the press was developed and some experimental issues were struck during the 1960s. As the head of administrative services at Manufacturing Development Staff (the Tech Center division which he knew about the project and arranged interviews with several former Tech Center employees who worked on it. They are the primary information sources for information in this article. Additional information was obtained from contemporary *Coin World* articles, and former U.S. Mint Chief Sculptor-Engraver Frank Gasparro.



I've decided to make this information public because of its interest to coin collectors, to address speculations about the project, and because, as time passes, it can only become more difficult to establish a valid and reliable historical record. Of the 50 or so GM employees who originally worked on the project at the Tech Center, fewer than a dozen are still alive, and all are more than 70 years old. None wished to be publicly identified, but virtually all believed it was

important to tell their part of the story of the machine that Mint Director Eva Adams once declared "will be the greatest development in the art of minting that has been made in the last 2,000 years."

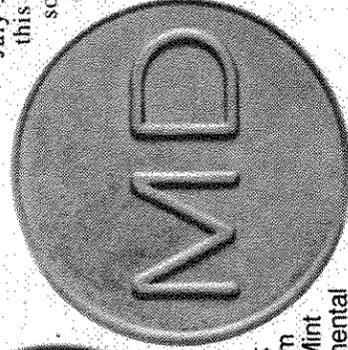
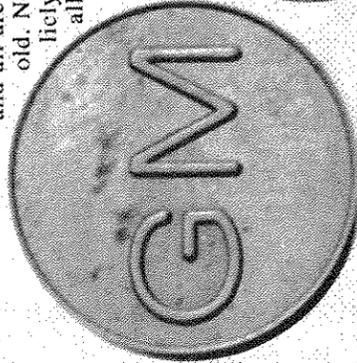
There's a straightforward explanation why so little is known about this project: The new coin machine was a failure.

Is it unusual that employees of any organization — be it the Philadelphia Mint or General Motors Corp. — aren't anxious to talk about a project which failed and whose top executives wanted to succeed? I don't think it's unusual. Upon reflection, I don't believe most people will think it odd, either.

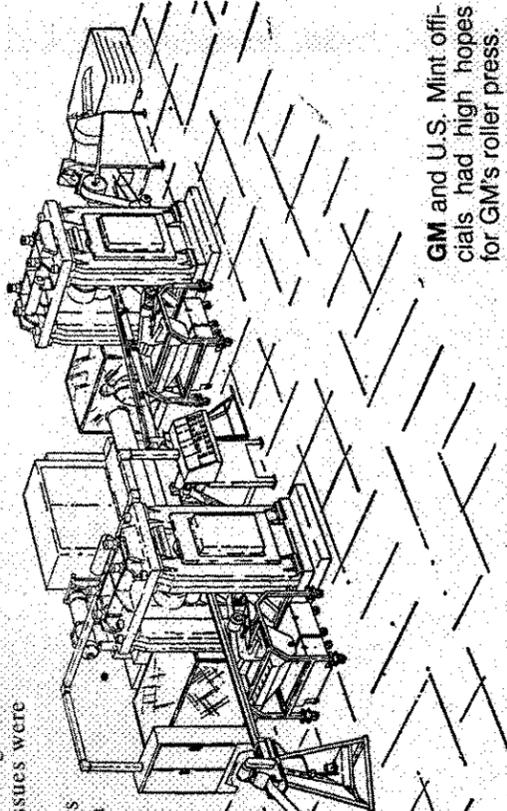
I began this research after reading an article in the November 1994 issue of *COINage* magazine, in which author Thomas K. DeLorey mentioned the so-called "Lady Head" piece and attributed it to GM. I vaguely remembered the project and that some trial pieces had been struck, but thought they'd been designed after the Lincoln cent — not a "Lady Head." This account isn't comprehensive, because none of the former Tech Center employees I was able to locate had worked on the project continuously from beginning to end. Those who worked on it only at the beginning were unaware that "Lady Head" pieces were struck; those who worked on the project only toward the end didn't know that any Lincoln head pieces were made. Nevertheless, I was able to reconstruct a fairly complete account of the roller press and the various issues it produced. Future research may identify other valid and reliable evidence about the project.

Q. David Bowers published the initial results of my research in the May/June 1995 issue of *Rare Coin Review*. But I continued to gather data. Meanwhile, more information appeared in an article published in the May 1995 issue of *Coins* magazine, in which author Eric von Klinger quotes information about the roller press from annual Mint reports and other sources, and identifies dates consistent with the time periods cited by former Tech Center employees I interviewed. Further information was available from the articles about the roller press which appeared in the *Coin World* issues of June 11, 1969; Aug. 27, 1969; July 30, 1969; Jan. 7, 1970; and April 22, 1970. All this information contributed to establishing when some of the various experimental issues were struck.

The story of the General Motors pieces began in late 1963 with a private viewing of "Goldfinger," a James Bond movie. Be-



GENERAL MOTORS struck this experimental piece from dies produced by the U.S. Mint in June 1964 on its experimental roller press. The obverse features GM, with the MD on the reverse representing GM's Manufacturing Development division. Later pieces bear a sandblasted portrait of Abraham Lincoln, and were also struck from dies provided by the U.S. Mint.



GM and U.S. Mint officials had high hopes for GM's roller press.

Please see **GM** Page 66

Please see **BEP** Page 87

FRN changes over past years include inks, engraving depth

By **Michele Orzano**
COIN WORLD Staff

While collectors of U.S. paper money await the issuance of new designs for Federal Reserve notes, the Bureau of Engraving and Printing continues to experiment with paper, ink and other aspects of producing Federal Reserve notes.

In the summer of 1994, U.S. Treasury officials announced the BEP would begin testing certain anti-counterfeiting devices — paper, ink, printing techniques — in anticipation of the release of an updated design for the \$100 FR notes in 1996. But long before the Treasury announcement in 1994, there had already been changes made to the paper, to printing techniques as well as the addition of anti-counterfeiting devices.

Changes to the depth of the intaglio engraving were most recently made in 1986. The depth of the engraving was reduced from 60 to 120 microns to 40 to 80 microns. According to a BEP spokeswoman, the changes to the depth was made to optimize the printing on the water wipe presses. Intaglio printing produces notes with a three-dimensional look. In addition, the effect of this printing method cannot be produced photographically.

Intaglio plates have crevices etched into them so that the ink can sink deep into the grooves. When paper makes contact with the plate under extreme pressure, the ink is forced into the paper. The series of lines produce an embossed effect which can be felt with the fingertips.

By 1990, the U.S. Treasury Department introduced two devices said to help prevent counterfeiting — a Mylar security thread and microprinting around the note's portrait vignette.

The security thread runs vertically — top to bottom — to the left side of the portrait. The thread repeats USA and the numeral or name of the denomination. The microprinting repeats THE UNITED STATES OF AMERICA in type too small to be reproduced by photocopiers.

One of the most recent changes happened in July 1993 when the BEP converted to a neutral-cure paper. The reason for the change was the po-

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