

# Beginner's Corner

## Abrasion Doubling

by John A. Wexler, NLG

There is one more form of doubling, known as abrasion doubling, which collectors frequently confuse with doubled die doubling. It gets its name from the fact that it is caused by rubbing an abrasive on the face of the die. This is usually done deliberately in an attempt to remove die clash marks.

For those unfamiliar with the die clashing process, a small understanding of how coins are struck is in order. As we already know, planchets are struck by a pair of steel rods called dies. One carries the obverse design and the other carries the reverse design. In most of the older coining presses, a planchet would be fed between the two dies and come to rest on one of them known as the anvil die (usually the reverse die). A collar would surround the planchet to prevent metal being squeezed outward at the moment of impact of the dies. The hammer die (usually the obverse die) would then strike the planchet with great force and a coin would be struck.

Every now and then, there would be a malfunction of a coining press and a planchet would fail to be fed between the dies. In the process of striking, since there was no planchet between them, the dies would strike each other. The result was that part of the obverse design would be struck onto the reverse die and part of the reverse design would be struck on the obverse die. When planchets were subsequently fed between the dies to be struck, the coins would bear these "clashed" images.

On the Lincoln Memorial Cents, the clash marks appear as Memorial columns on the obverse which were usually seen behind the neck in the area of the TY of LIBERTY. Clash marks of the Memorial columns could also be seen below Lincoln's beard. On some of the stronger clashes, they would be seen to the right of Lincoln's face. On the reverse die, the clash marks would normally appear as an inverted TY of LIBERTY in the first two Memorial bays and an incuse outline of Lincoln's beard in the Memorial bays to the right of the statue of Lincoln.

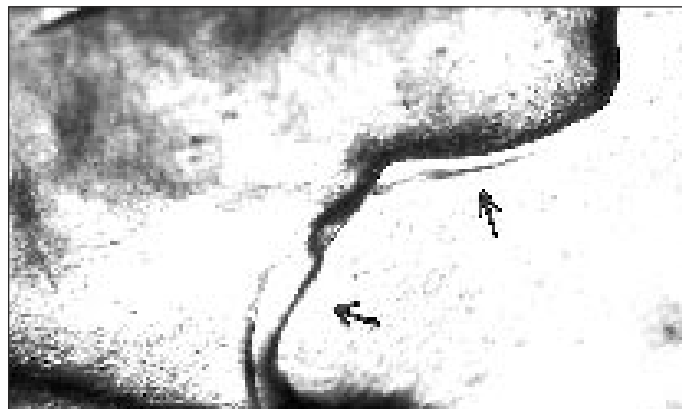
In an attempt to remove such die clash marks, the surface of the die is rubbed with an abrasive. If the die is abraded too vigorously in the area of the incuse design elements on the die, the abrasive will eat into the die surface

in those areas very much like the erosion that takes place in normal die deterioration. The result will be "doubling" of the letters or design elements.

The Denver Mint apparently had problems with its die abrasion process from 1956 through 1958. Numerous dies were abraded rather vigorously, producing doubled images of Lincoln's beard, throat, bowtie and the back of his neck. Several of these were listed in the CONECA doubled die files as doubled dies.

The Lincoln Cent is not the only denomination with examples of this type of doubling. It can be found, to some extent, on all denominations of U.S. coins.

Like mechanical doubling and die deterioration doubling, abrasion doubling is considered to be a form of die damage. As a result, most serious collectors of doubled dies will not be interested in these and there is no additional premium assigned to coins displaying this form of doubling.



*Doubling on the throat and the underside of the beard shows on this 1956-D cent. Specimens of this working die can be found with and without the doubling, proving that it is not a true doubled die.*



*Abrasion doubling shows on the TY of LIBERTY on this 1976 cent, listed elsewhere as a doubled die. Note how the doubling coincides with the area where the clash marks can be seen on the 1970-S cent below.*



*This author believes that the doubling on the TY of LIBERTY of this 1971 cent is actually abrasion doubling. It is listed elsewhere as a genuine doubled die.*



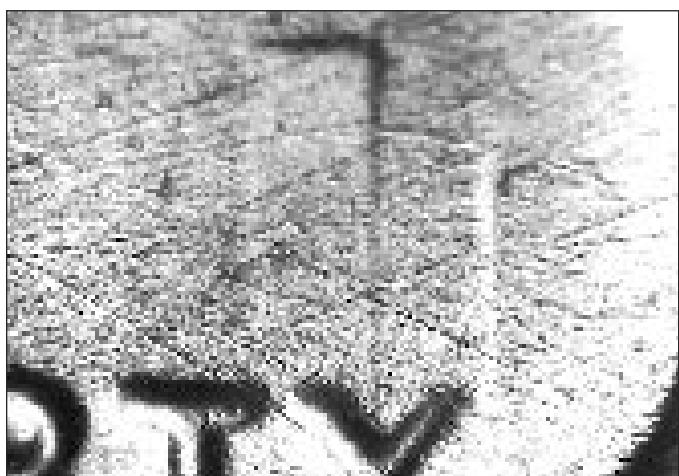
*This photo shows an unabraded die clash mark behind Lincoln's neck. It is part of the C of CENT on the obverse of a 1957-D cent.*



*Here we see additional strong die clash marks from the words ONE CENT on the obverse of the 1957-D cent.*



*Here we see a 1956-D cent with apparent doubling on the back of the neck, the hair on the lower part of the head and the top of the back of the vest.*



*Die clash marks of the Memorial columns can be seen above and through the letters TY of LIBERTY on this 1970-S cent.*



*Strong incuse images of the TY of LIBERTY are inverted in the first two bays on this 1984 Lincoln Cent.*



*Doubling can also be seen on the 97 of the date on the same 1971 cent seen on the previous page.*



*At times, abrasion of the die eats into the lower front of the vest producing doubling of the vest in that area as is the case on this 1968-D cent. It is not a true doubled die.*

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