NEWSDAY EXPLAINER Testing the Smoking Gun

CEORGE REICH, a slender, gray-bearded veteran of more than 30 years in police work, is a ballistics expert with the Suffolk County crime laboratory. He was one of three firearms examiners called in to test James Earl Ray's rifle to determine whether it fired the shot that killed the Rey. Martin Luther King Jr.

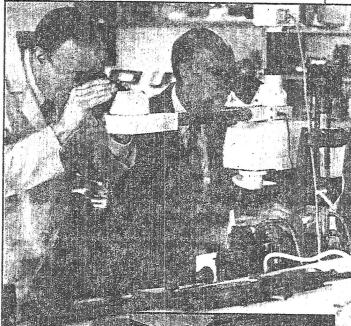
Such testing requires patient, methodical investigation. "We were challenged to test the Ray rifle using both classic microscope techniques and more advanced technology," Reich says.

"When a bullet is fired through a gun barrel, great pressure is built up. Random markings from the gun barrel, known as striations, are transferred to the bullets. In the Ray case, we were comparing the test bullets under one of the most advanced comparison microscopes — that is, two sideby-side microscopes — with the King murder bullet. We were looking for markings that were repeated consistently in enough quantity to say the test bullets were fired from the Ray rifle and also to say whether those same markings were present on the King evidence bullet."

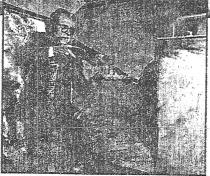
If the test results show that the markings on the test bullets are consistent with those on the evidence bullet and thus demonstrate that Ray's rifle actually fired that bullet that killed King, one of the linchpins of his case for a new trial will be destroyed. His entire claim that he was a patsy in a conspiracy rests on the notion that he was framed by conspirators who fired another weapon but made it appear that his rifle was used.

In the past, tests on the fatal bullet were unable to determine whether it had been fired from Ray's rifle or any other weapon because the bullet had been deformed in passing through King's body. But Ray's chief lawyer, William Pepper, contended that new technology might make it possible to determine whether the Ray rifle had been the murder weapon. A court in Memphis ordered new tests using this technology — including a sophisticated scanning electron microscope that can magnify items to 100 times their size.

Reich was asked to take part in the tests by



At right, Reich fires into a 900-gallon water tank last month at the lab where he helped run ballistics tests on James Earl Ray's gun. Above, fellow firearms expert Hathaway with Reich.



Photos by Anestis Diakopoulos (top) and AP

Robert Hathaway, a firearms expert at the University of Rhode Island crime lab, who in turn had been recruited by Pepper Hathaway chose Marshall Robinson of the Waterbury, Conn., police department as the third member of the team. "We had all worked together before," Reich says. "And we all talk, breathe and sleep guns."

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