



Vancouver's Inspector Vance spent 42 years tracking down criminals in his crime laboratory.

Crime Leaves An Odor

By Cy Young

Veteran criminologist John Vance has a mechanical bloodhound that catches a wrongdoer by his scent

NSP. JOHN FLEMING CULUN BROWN VANCE, one of Canada's greatest criminologists, is retired now, but the scientific war against crime he has been waging all his life is not over yet. In fact, he's just putting the finishing touches to his greatest weapon — an "odor camera" to trap criminals by their smell just as surely as fingerprints trap them today.

As head of the Vancouver Police Bureau of Science, Vance spent 42 years trapping murderers, arsonists, safeblowers and other criminals with such slender clues as bits of cloth, dust, paper and glass. And he was so successful at solving "perfect crimes" with his "crime laboratory" when the ordinary wheels of justice broke down that a lot of people started calling him "Sherlock Holmes" and the underworld plotted to kill him at least seven times.

When Vance walked out of the Vancouver police force on pension this spring at the age of 65, he left behind him a \$100,000 laboratory occupying the entire top floor of police headquarters. His whole life had gone into building it and police from all parts of the continent came to see some of the strange gadgets in it and listen to Vance's theories.

Vance trail-blazed many new uses for the spectroscope and microscope in criminology. In ballistics work he evolved a system of "gunprinting" which did everything but make the weapons go into court and talk. His most spectacular invention to date, however, is the odor camera, or as his friends call it, the Vancamoscope.

The theory behind the odor camera is that every human being emits his own distinctive odor and that, like fingerprints, no two are identical.

"Where a crime has been committed the criminal always takes something away or leaves something behind," says Vance. "That is an unwritten law," explained Vance. "If there are no other clues there will still be the criminal's odor at the scene to link him with the crime."

Vance claims that initial laboratory tests have been highly successful and that only a little more work is needed to iron out remaining technical difficulties.

Explaining how his "mechanical bloodhound" works when it "photographs" the odor of a suspect who has fled the scene of his crime, Vance says: "I spray a gas over the spot where the suspect is believed to have stood or have placed his hands. Vapors then rise in the instrument until they strike a spectrum band. Here, according to the break in the spectrum band, the suspect's odor is classified. When the odor is matched with an identical 'photograph' I think we will get identification as positive, if not more so, than fingerprints can establish. First, though, is the problem of getting the spectrum sub-divided."

Successful development of the odor camera is Vance's main project.

Vance was an ambitious young chemical and metallurgical engineer on his way to the Yukon goldfields as an assayer in 1907 when he was offered the job of city analyst and chief chemist for the city of Vancouver. He took it.

Vance, it appeared, had traded the turbulent excitement of life in a northern gold mining camp for a round of prosaic laboratory duties testing milk and other foodstuffs for impurities.

But time proved otherwise.

Vance spent a lot of time talking to detectives and lsitening to their troubles. They began coming to him with stray bits of evidence which puzzled them and Vance started making some startling deductions. Soon he was spending more time solving crimes than looking for germs in milk.

He soon had a staff of 15 assistants and a laboratory rated as one of the finest in the world. City, provincial and RCMP investigators enlisted his aid in baffling cases and he was instrumental in convicting more criminals charged with serious crimes than any other police officer in the province. To give him the necessary authority while gathering evidence at the scene of a crime, he was made an honorary police inspector 16 years ago.

Vance has saved the city thousands of dollars helping avoid damage suits through establishing innocence of many suspected persons before arrests were made.

"Establishing a person's innocence has always given me a great deal more pleasure than bringing a crime to a guilty man's door and seeing him get sent up for a long stretch," he says. The Vancouver underworld respects him as a "square cop."

Tall and slim, with graying hair that is obstinately wavy, Vance has the quick mannerisms, precise speech and easy-to-talk-to air of many a university professor. In the witness box he is equally pleasant and urbane—and absolutely unshakable. Said one prominent defence attorney following conviction of his client on Vance's evidence: "With the case Vance built up through scientific evidence my client didn't need a lawyer—he needed a magician. Just let Vance find a bit of string or broken glass, a few grains of dust in the criminal's pant cuffs and the fellow's goose is absolutely cooked."

The detective's painstaking, take-nothing-forgranted attitude has been characteristic of him throughout his career. One of his first jobs for the city saved police considerable embarrassment. Here is the way Vance tells the story:

"In the early days Vancouver police handled all the narcotic cases in the city which are now investigated by the RCMP.

"City detectives had made a big raid on Chinatown. Newspaper headlines screamed the story of the breaking up of an international drug peddlers' ring through a \$500,000 seizure of cocaine, morphine and opium. The newspaper stories outlined in detail how the Chinese were caught red-handed in a den, all with handkerchiefs tied tightly about their faces as they made up the 'decks' of narcotics for resale.

"There was a week's adjournment in the case. In the meantime I discovered the whole thing had been nothing but a 'plant'—a carefully devised plan by the wily Orientals to discredit the police force. One of their own number had even been selected to act as informer.

"They hoped we would be careless and not look too closely at the large quantity of dope which had been seized. But our chemical analysis showed the seizure to be strictly phoney—the 'morphine' was sodium bicarbonate and the 'cocaine' a mixture of boracic acid and sugar of milk."

Police had the last laugh, thanks to Vance's care in conducting the laboratory tests.

Some of Vance's more spectacular cases read like sheer fiction. There was the case some years ago of the matron from the fashionable West End Vancouver section who apparently disappeared. The woman's husband, who had reported her missing, could throw no light on the case. Continued on Page Fifteen

Vancouver's Police Bureau of Science exhibits some of their \$100,000 worth of crime lab equipment built up by Inspector Vance.



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A Chinese houseboy employed by the couple was arrested on suspicion and questioned but could give no clue of where the woman was.

Vance was summoned. He arrived with his black suitcase containing such equipment as a small rake for combing ashes, a high-powered searchlight, instruments for discovering traces of poison and other devices. Soon after his arrival the following evidence was discovered: a large damp stain in the centre of the living room carpet which proved to be blood; traces of blood beneath the handle of a carving knife and under a baseboard; human bones and a partially burned dress buckle in the ash pit in the back yard.

Faced in court with Vance's overwhelming exhibits, the Chinese broke down and admitted his guilt. He had stunned the woman with a chair during an argument, he said. Later, panic-stricken, he had dissected the woman's body and burned it in the furnace.

Once Vance pinned a crime on a breaking and entry suspect because the criminal had been careless enough to carry away a few flecks of plaster in the cuffs of his trousers from the scene of his crime.

"The man had entered the store after renting a room above it," Vance explained. "Then he broke through the floor, lowered a rope, slid down it and robbed the store.

"In the laboratory we found that the plaster and bits of splintered wood from the wall of the store matched that found in the man's trouser cuffs. His defence folded in the face of this evidence."

The most sensational case in recent years that Vance helped to solve was the False Creek flats shooting in Vancouver in 1947, in which two policemen and an armed youth were fatally shot in a revolver duel.

One of the youths on trial for murder swore he was unarmed when the shooting occurred. Testimony of Sgt. Det. Percy A. Hoare, who was seriously wounded in battle, corroborated his story, but several other Crown witnesses swore they saw the youth fire several shots. Vance's evidence that he had examined the accused's hands immediately after the shooting and found no traces of gunpowder was a big factor in the youth's acquittal.

Vance says that the modern criminal is "quite a clever man."

"Criminals nowadays usually take along an extra change of clothes when they commit a crime to help cover their trail," he says. "Many are clever at the art of disguise and it is seldom that an experienced criminal leaves fingerprints.

"Nevertheless, the criminal who attempts to match wits with the spectroscope and other scientific apparatus available in a modern crime detection laboratory is little more than a fool. With chemistry, the facts established are definite and final—the test tube never makes a mistake."

On occasions Vance has conducted scientific tests for important cases from his sickbed. Once several youths suspected of a drug store robbery were escorted by detectives into Vance's room, where he determined whether makeup used by the men in the hold-up was identical with makeup discovered in the get-away car.

Running a home for a celebrated detective has caused quite a few problems for Mrs. Vance. When one of the Vances' children, Edith, was five, her first trips to school were under police bodyguard. Mysterious, threatening calls and notes advising Vance to "lay off" certain cases kept the family in a constant state of jitters. In the mid-thirties Vance's safety was jeopardized on seven separate occasions. Several times the safety of his wife and four children was also at stake.

"During the worst period we had two detectives guarding the house for six weeks. It was terrible," Mrs. Vance recalled.

The first attempt to kill Vance occurred in March, 1934. Luckily, he was suspicious of a bulky package which arrived for him in the mail. A quick tug at the string would have set off a powerful, home-made bomb.

Six days later Det. Leonard Parsons smelled burning powder while guarding the Vance home. He barely managed to extinguish a lighted fuse which was within two feet of a tin of nitroglycerin which had been placed under the house.

Six months later Vance narrowly escaped another attempt on his life when a bomb was discovered under the gasoline tank of his automobile.

The most spectacular attempt on Vance's life almost blinded him. A man appeared at the window of Vance's garage shortly after he had entered it one evening, and threw a jar containing sulphuric acid directly at his face. Vance saved his eyes by throwing his arms over them, but he suffered severe burns on his face, arms and legs.

Visitors to Vance's laboratory could see a strange collection of live bombs, counterfeiting equipment, safecrackers' tools and other criminal paraphernalia. More interesting to the techniwas Vance's collection of scientific equipment such as his helixometer for the examination of weapon barrels; polariscope and refractometer for identification of various liquids and solids; his low-power microscope for identifying hair, dust and other small particles; high-power microscope for examination of blood, smears and stains; "comparator" for comparison of handwriting, fingerprints and typewriting; ultra-violet ray equipment for detection of forged documents and counterfeit money; spectroscope and other modern crime-fighting equipment. Since Vance's departure the laboratory has been more departmentalized. Gathering of evidence at the scene of the crime for later scientific examination at the laboratory is now done by fingerprint and photo teams.



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