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FEBRUARY 1968

FBI

LAW ENFORCEMENT BULLETIN

FEDERAL BUREAU OF INVESTIGATION
UNITED STATES DEPARTMENT OF JUSTICE
J. EDGAR HOOVER, DIRECTOR

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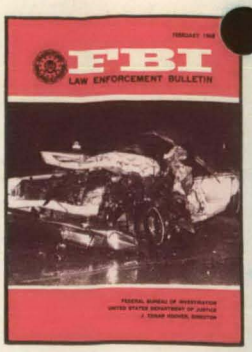

THE COVER—*Traffic accident investigation. See page 2. (Front cover photo courtesy of Metropolitan Police Department, Washington, D.C.)*

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CONTENTS

MESSAGE FROM THE DIRECTOR

MAN CANNOT LIVE in our complex society today without a system of laws. The system is doomed unless the laws are enforced, and the enforcement officer is ineffective unless his efforts to maintain the peace and protect life and property are supported by the government and the people.

The destruction of law enforcement, particularly at the local level, appears to be a prime objective of some dissident groups and individuals in our country. While they have made no appreciable headway, they are creating such a smokescreen of harassment and intimidation that enforcement of the law is becoming an overwhelming burden for many agencies.

In some areas, the doctrine of dissent is bordering on a doctrine of nihilism. Since local law enforcement represents the first line of defense of our social order, it becomes a primary target of those who challenge established authority. Regardless of the cause they support, many groups seek altercations with local police to gain publicity and sympathy. Consequently, in this rebellious climate, law enforcement must not only cope with an alarming and increasing crime problem but must also defend its very existence.

Currently, there is a move to have Federal courts take over certain local police departments and supervise their operations. According to this ridiculous plan, the courts would place a police department in receivership and appoint a special "master" with full administrative powers over its affairs. The courts could do this country a great service if they would promptly, and with finality, slap down such schemes to undermine and destroy local law enforcement.

Over the years, the FBI has consistently championed the cause of progressive State and local law enforcement. While extending full cooperative services to police agencies and assisting in the training of many thousands of State, county, and city policemen, this Bureau has meticulously kept within the scope of its own authority and avoided any encroachment in areas of responsibility belonging to State and local police.

America has no place for, nor does it need, a national police force. It should be abundantly clear by now that in a democracy such as ours effective law enforcement is basically a local responsibility. In the great area of self-government reserved for States, counties, and cities, the enforcement of the laws is not only their duty but also their right. Law-abiding citizens and local officials should vigorously oppose concerted attacks against law enforcement and the devious moves to negate local authority and replace it with Federal police power.

J. Edgar Hoover

FEBRUARY 1, 1968

JOHN EDGAR HOOVER, *Director*

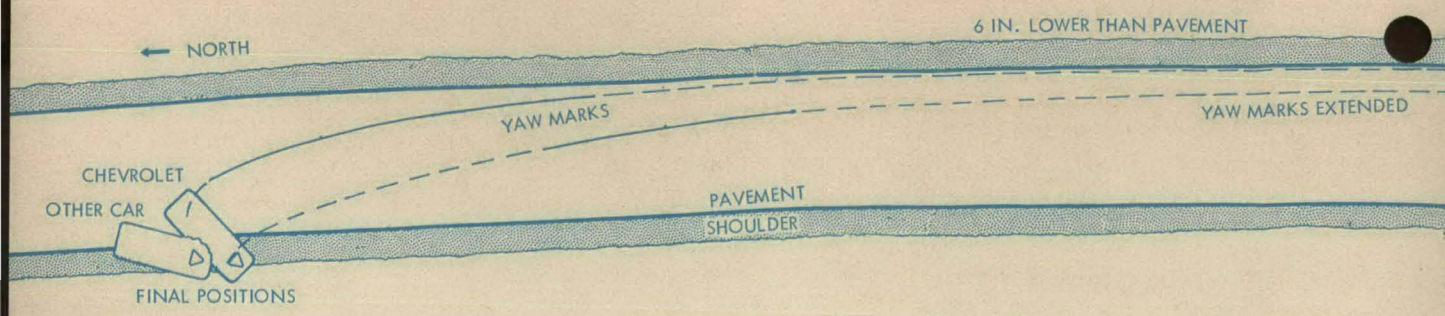

Exhibit 1: These tire marks were left after accident in Case A. Dotted lines have been added to show extensions of marks actually found.

Weaknesses in Traffic Accident Investigation

JAMES M. SLAVIN*
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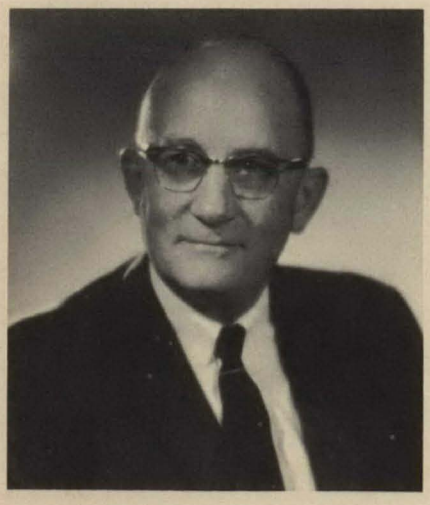


Police who attend traffic accidents have a number of important duties. These may be classified in three main categories: handling the emergency, obtaining basic data, and making unstructured inquiry.

Handling the emergency relates closely to the fundamental police function of protecting life and property. The object of this duty is to keep the accident from becoming worse. It involves directing traffic at the scene, preventing or coping with fires, attending the injured and arranging for their transportation to hospitals, overseeing removal of obstacles from the roadway, and suppressing pilferage. These duties are important but not actually part of accident investigation.

Obtaining basic data is an entirely different kind of task. It involves securing the information required in the structured or specific part of the official traffic accident report form. Essential basic data include identification of vehicles and occupants involved, brief description of occurrence, time, road location, witnesses, damage, injury, removal of injured, removal of vehicles, approach directions of traffic units, and intended maneuvers of drivers.

*Mr. Slavin became director of the Traffic Institute of Northwestern University on Sept. 1, 1963. A 1946 graduate of the institute's police administration program, he originally joined the staff in 1948 as assistant director of training in police administration. He remained at Northwestern until 1957, when he assumed active duty in law enforcement as police chief of Kalamazoo, Mich. Prior to returning to the institute, he spent 18 months as chief of police in Denver, Colo. In addition to his other activities, Mr. Slavin is a guest lecturer at the FBI National Academy.

The facts obtained are necessary to determine traffic accident rates and trends, guide selective enforcement and spot improvement programs, accumulate driver-accident information, and evaluate the effectiveness of safety measures. By and large, police perform this function competently with little special training. With some additional training, they could do equally well in gathering additional or more detailed information, provided the required police time is available.

"*Investigation*"

Obtaining basic data is traditional and routine. Therefore, some people are reluctant to classify it as part of traffic accident investigation. They prefer to reserve the word "investigation" for a more "careful search or examination," as the dictionary defines it. But if obtaining such basic data is to be considered part of investigation, it is certainly only the first level or echelon of investigation. Beyond it are several much more technical phases ending with accident reconstruction and cause analysis.

Most police departments do not go beyond first echelon investigation except in very unusual traffic accidents. Filing the accident report form completes their "investigation."

Unstructured inquiry is the effort to get more information than the facts required by the official traffic accident report form. It is still an ill-defined activity. As a rule, the kind and amount of additional data gathered are left to the judgment of the individual officer. Usually there is little or no formal policy to guide him in this judgment. He goes by custom and tradition.

For most fatal accidents, and many serious ones, some attempt is usually made to make measurements, take photographs, and get statements. The information sought seems to be determined largely by three considerations:

1. Data needed to prosecute offenders for traffic law violations (a proper police function).
2. Facts attorneys will ask for in attempting to settle claims arising from the accident. (Police regard this as a kind of public service.)
3. The cause of the accident. (This is thought of vaguely as a kind of research activity.)

From here on this article will consider only unstructured inquiry—the attempt to get and interpret information about traffic accidents beyond that specifically required by the usual report form. It is in this activity that police most often feel insecure, falter, or fail. Some police officers, perhaps from unfortunate past experience, never attempt more than what is required on the form; this seems to them to be the safe way of handling the matter. But for serious accidents most policemen make an honest effort to obtain some information in addition to that required on the form. In doing so, most are groping toward rather unspecific goals.

Examining failures in these efforts can be useful supervising work, guiding training programs, and evaluating results for legal and research purposes. A few specific cases will illustrate the kinds of problems encountered in second echelon investigation as contrasted with simple traffic accident reporting.

Case A

Circumstances: For better performance a 17-year-old boy had a 1956 Chevrolet "fixed up" with a four-barreled carburetor, front coil springs stiffened with rubber plugs, and a bronze paint job. Early on a summer evening, hours after he got the car from the shop, the boy invited three friends to take a ride in it. They chose a road which had just been smoothly resurfaced with bituminous concrete. In fact, the shoulders had not yet been brought up to the pavement level, and there was a 3- to 6-inch dropoff along the right shoulder. The road was marked with "low shoulder" signs at intervals.

For about half a mile the road was straight. Then it turned to the left in a slight curve (2,800-foot radius). About 300 feet after entering this curve, the car veered sharply left. It yawed across the road into the opposite lane and went broadside toward its right.

Another car was approaching in the opposite direction. The driver saw what was happening and managed to get partly off the roadway onto the shoulder. When they collided, the right side of the Chevrolet was against the front of the other car. All seven occupants in the two cars were killed. There were two clear, narrow, curved tire marks from the edge of the new pavement on the Chevrolet's right up to the collision point. The mark nearest the edge of the pavement measured 120 feet long. The other was shorter. See exhibit 1.

The problem was to explain what made the car swerve so suddenly across the road to the left. There was considerable discussion of the matter among people at the scene of the accident. The official police report contained the following statement: "Right wheels of Car 1 (Chevrolet) ran off pavement and dropped to low shoulder. In pulling back on, car jerked across road to left side."

As a consequence, the State highway department, which was responsible for the new paving, was sued by families of the occupants of both vehicles for negligence in insufficiently protecting the construction site.

Analysis: On what basis did the investigator conclude that the car had dropped off the edge of the new pavement? Possibly because this seemed to be the consensus of those who speculated about it at the scene. There was,

indeed, an abrupt dropoff, and the tire marks did undoubtedly begin very near the right edge. But the following day, when the tire marks were re-examined, they had "faded" and their exact beginning could not be determined.

Did the tire mark actually lead to a point where the wheel that left it came back on the pavement? No, it could not actually be followed to that point. If a tire dropped off the irregular, somewhat loose edge of the blacktop and then returned, would any sign of the movement remain? This was easily determined by experiment. A car was driven off the edge and back on again at about 20 m.p.h. There was definite crumbling down of the road edge both where the tire left and returned. Moreover, conspicuous particles of loose and tacky paving material marked the inner wall of the tire and stuck between tire and rim. But examination of the damaged Chevrolet tires showed no such deposits.

Exhibit 2: Although not in collision-damaged area, the left front tire of the Chevrolet was flat after the accident.

Thus, no eyewitness reported that he saw the car go off the pavement, and there were no physical signs indicating this. Hence, there was no reason to believe that what was reported had actually happened.

After the accident the left front tire of the Chevrolet was flat. This tire was not in a collision-damaged area. Casual examination showed that the tread was gone and one layer of cords worn through. It was possible to push a pencil or finger through the remaining plies. See exhibit 2. Perhaps this would have been a useful observation for the investigator to have made. Surely its connection with the behavior of the vehicle could be more logically inferred than the unsupported circumstance reported.

Case B

Circumstances: An empty dump truck with dual rear tires was going up a steep (6 percent) grade and entering a moderate curve to its left. It was in the middle of its lane. A car with five men in it approached from the opposite direction. It swerved out of its lane and collided with the truck. The truck shoved the car back about 12 feet in the direction from which it came. All car occupants were severely injured.

Photos were made of three skidmarks behind the truck, but no measurements were taken.

Problem: Lawsuits arising from the accident hinged on the speed of the truck. The investigator positively identified the skidmarks as having been left by the truck; but he had to guess that they were about 90 feet long. To a hypothetical question founded on the investigator's testimony and other facts about the collision, an expert gave an opinion that the truck was going more than 50 miles an hour. That was 15 miles an hour more than the truck speed limit at that point. The truckdriver, of course, denied any such speed.

Analysis: The photo showed three tire marks, two from single tires and one from dual tires. Those from single tires extended farther behind the truck. Because they were from single tires, they had been attributed by the investigator to the front wheels of the truck. But the picture clearly showed a passenger car stopped behind the truck nearly on that pair of marks. See exhibit 3. A comparison of the wheel gage of the passenger car with the distance between the two marks showed that they were almost exactly the same, 5 feet. It also showed the tire tread width of the skidmarks to be close to that of the passenger car, about 4½ inches. But the truck front wheels had a gage of about 6 feet and the tires had a tread face about 7 inches wide. Hence, these ma[illegible] could not have been made by the

Exhibit 3: In Case B the skidmarks behind the truck were disputed. The two black lines, one horizontal and one vertical, were placed on the picture for photogrammetric purposes. At the rear of the second car from the right are two white parallel lines, one to indicate the tread width of the car and the other to indicate the corresponding lateral spacing between the tire marks as equal.

truck, as the investigator was obliged to admit on cross-examination. The tire marks were probably made by a [illegible] following the truck closely up the hill. The car behind the truck had departed, and its place had been taken by the police car before the photos were made.

The dual-tire marks led directly to the left rear truck tires. But how long were they? A photogrammetrist had to be employed to compute this from the photograph at a cost of several thousand dollars. They were about 62 feet long. Test skids made by the truck indicated a speed of less than the speed limit.

How simple it would have been at the time to make sufficient observations to determine whether the single-tire marks were left by the truck. Did they lead to the truck's front wheels, or did they stop behind the truck? And how much time would it have taken to measure or at least step off the length of the truck's tire mark?

In this case it was possible but expensive to make up for lack of complete investigation by the police. But often this is not possible and justice may go awry.

Case C

Circumstances: After midnight a loaded, three-axle truck ran into the rear of a car on a straight, level, rural, divided, unlighted highway. The driver of the car was killed. The driver of the truck said he did not see the car until just before he hit it. He claimed it was stopped in the road without lights. The truck left skidmarks for 40 feet before hitting the car and for 45 feet afterward. It pushed the car ahead and remained in contact with it.

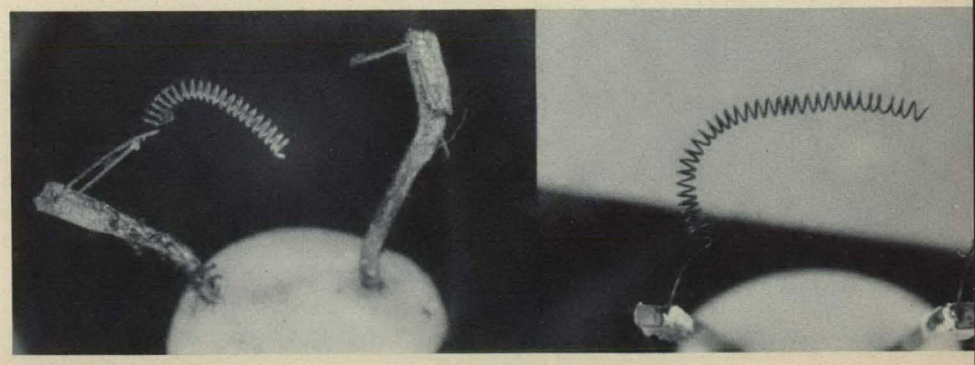
The official report of the accident indicates that the truck was "following too close." The truckdriver was cited for that offense and convicted.

The investigator and tow-truck operator both noted that the light switch was pulled out—the on position—when they opened the car to get the driver's body out. The inference was that the lights were on.

Problem: Were the lights really on or off? This was explored more fully in a subsequent civil suit arising from the accident.

Analysis: The badly damaged car was carefully examined. The left taillamp was in the heavily crushed area; no part of it could be recovered. The right lamp lens was broken, but the bulb was intact. The license plate lamp was broken, but half of the exposed filament was intact. Although stretched and broken by collision damage, it was bright and clean. See exhibit 4. Had it been lighted and hot when the glass was broken, it would have been black from oxidation. The ends of the broken filament were sharp. Had the lamp burned out in service, the ends of the filament would have been rounded and probably would have had solidified metal droplets on them resulting from burnout arc. Therefore, one must conclude that the lamp was not lighted when the glass broke. The license plate light works from the same circuit as the taillights and headlights. Therefore,

Exhibit 4: The left filament from the license plate lamp broken in collision in Case C shows no oxidation. In comparison the oxidized filament on the right is from a similar lamp broken experimentally while lamp was on.



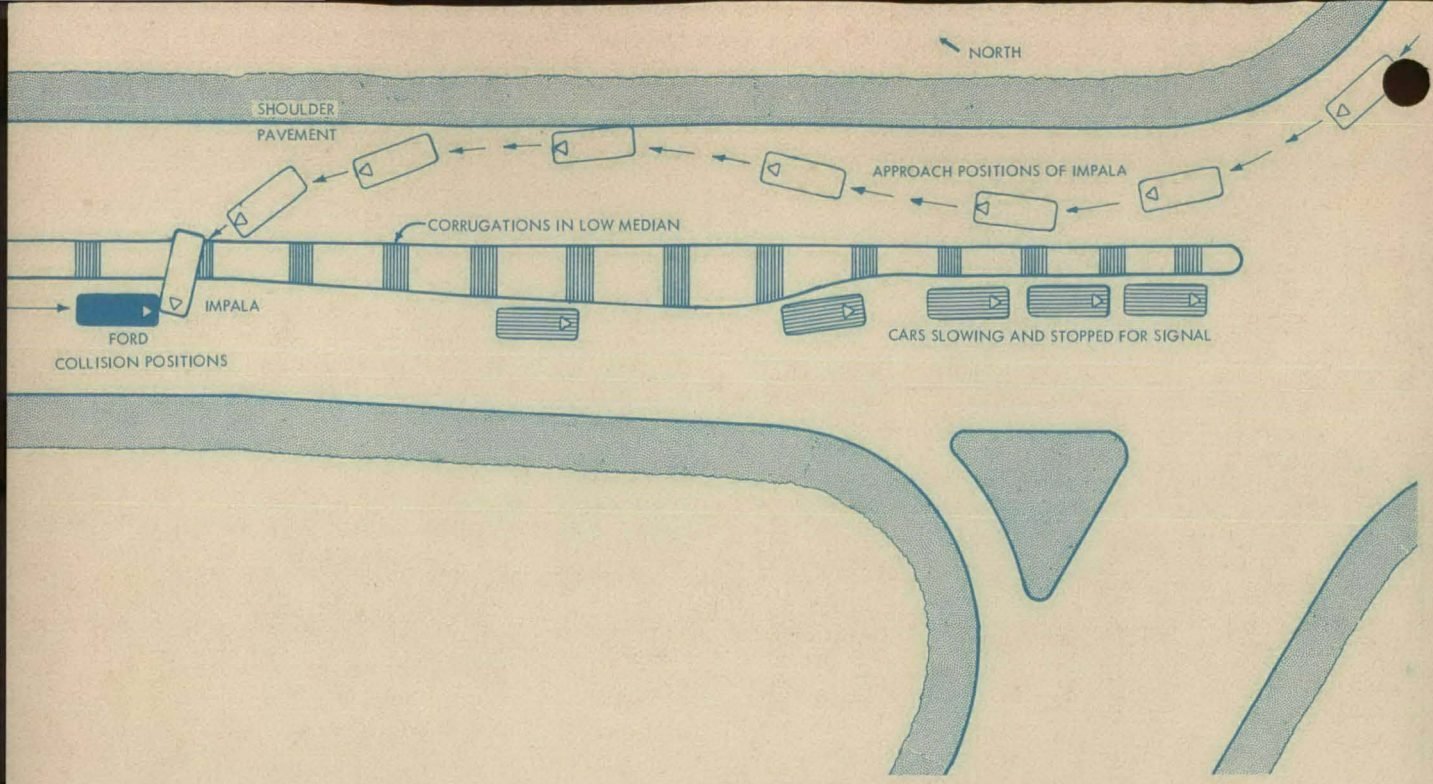


Exhibit 5: In Case D car took this path across median before collision.

other lights were also presumably off at the time of the collision. There is a possibility that the connection between the license plate lamp and the taillamp was broken so that other lights could be on with the license plate light off. The connection was damaged by the collision, but so far as could be determined, it was not broken before collision.

What about the switch position? Estimates of the car's movement during collision put the acceleration of the switch at about 40 times that due to gravity. Test of an identical switch on a centrifugal device indicated that it would open at an acceleration of about 15 times gravity. Hence, if the switch had been pushed in (off position) when the collision occurred, the sudden forward movement of the car would have tended to leave the switch knob behind. The collision acceleration would have been great enough to turn the switch on if it had been off.

Very heavy rear-end damage to the car indicated that the difference in the speed of the car and that of the truck was great and thus the car speed was very low compared to that of the truck.

Thus, the physical circumstances of the accident all tended to confirm the statement of the driver that the car was stopped or moving slowly on the road without lights. It would seem, therefore, that the charge of following too closely was not justified. No evidence could be produced as to how close the truck was following. Without such evidence, it would be impossible, of course, to determine whether the following was too close.

Case D

Circumstances: An oblique, signalized intersection of two 4-lane roads has transversible, corrugated, 12-foot medians with storage lanes for left-turning vehicles. Heading southeast, five cars were waiting in line for the green light. A sixth car, a Ford, was approaching the last of the waiting cars. A grandmother westbound in an Impala wanted to turn northwest before the light changed. She did but then suddenly veered across the median into the path of the oncoming Ford. See exhibit 5. The right front side of the Impala struck the Ford car in the left half of the front. The grandmother, only occupant of her car, was killed. A father and two sons in the other car were badly injured.

After the collision the right front tire of the Impala was completely flat. Occupants of three of the cars waiting for the signal independently reported that they heard two separate sounds: first a "blowout," "bang," or "explosion" followed quickly by the collision crash. There was also a squeal of tires. No tire marks were observed.

The report of the investigators said, "Right front tire of Impala blew, car went out of control, crossed median, and collided with Ford slowing for red light." Tire failure was checked on the report as the cause of the accident.

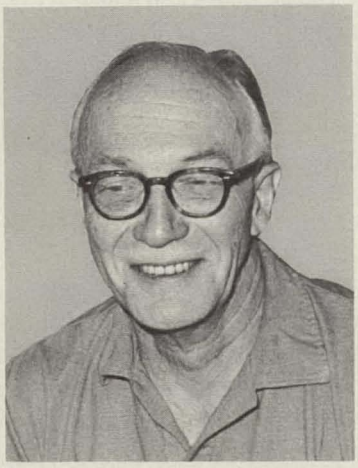
Problem: How did the tire fail?

Analysis: After the accident

(Continued on page 17)

The following article constitutes a brief attempt to acquaint the reader with some of the problems confronting the pathologist and investigating law enforcement officials when both are working together on a case. It is not an attempt to enumerate all the problems confronting these agencies, as this would require a treatise covering many hundreds of pages of printed material. Consequently, only a few of the problems will be considered here to give an insight into some of the more important ones.

The Forensic Pathologist in Medicolegal Investigations



Burlington Free Press Photo.

RICHARD S. WOODRUFF, M.D., C.M.
Chief Medical Examiner,
Office of State Pathologist,
College of Medicine,
University of Vermont,
Burlington, Vt.

Complete cooperation is an important factor when the law enforcement officer and the pathologist enter into medicolegal investigations. Without it many cases may terminate in incomplete resolution.

We frequently hear of instances when such cooperation does not exist. In some the fault lies with the pathologist. While excellently trained in the field of general pathology, he is completely lacking in an understanding of the peculiarities of forensic and traumatic pathology. In other instances the law enforcement agency may assume the attitude that the pathological examination is superfluous and, therefore, no attention need be paid to its findings.

Mutual Assistance

Usually the law enforcement officer can be of tremendous help to the pathologist because of his specialized knowledge. Equally the pathologist may furnish valuable aid to the law enforcement officer in the solution of a case, particularly if he has had special training in the pathology of trauma, in toxicology, and in the awareness of the value of trace evidence which may be deposited on or in a body.

The law enforcement officer can materially aid the pathologist by procuring adequate photographs of the scene and of the body before removal. Since the pathologist is rarely present at the scene to conduct interviews, the officer can help establish a probable time of death by obtaining pertinent information concerning the deceased. A coroner or medical examiner is usu-

ally called, but he may not be able to elicit all the necessary information. Therefore, the pathologist must rely on information obtained by the investigating officers.

Postmortem Phenomena

The pathologist needs to know the extent of the development of rigor and of postmortem lividity, if any of either was noted at the time of the initial examination. He should also be informed of the temperature of the area in which the decedent was found and the nature of the terrain in which the body rested.

Acquisition of this information is stressed because our interpretation of postmortem phenomena on or in the body has been revised in the last few years. Many established texts still print that postmortem lividity becomes "fixed" in 6 to 8 hours after death and then will not change location if the body is moved. We now know that the fixation time is much more variable because it depends on many factors which influence the rate of clotting and settling of the blood. The old belief that postmortem rigor (stiffening of the body) is fully established in 10 to 12 hours after death is somewhat misleading, as the phenomenon may require a much shorter or longer period of time.

Heat Loss

The rapidity of postmortem rigor depends largely on the decedent's physical development, his physical condition, the cause of death, and the temperature of the body at the time of death. In addition, the former empirical estimation of 1 to 2 degrees of heat loss per hour from a dead body is completely inaccurate, as many factors, such as the amount of clothing, the temperature of the surrounding air, wind currents, and humidity, will influence the rate of heat loss and cause considerable variation thereby.

At times the investigating officers may receive information that the decedent was last known to have partaken of food at a certain time on a certain date. This may be quite helpful, particularly if it can be ascertained exactly *what* the decedent ate at that time. If the contents of the stomach revealed the same items of food known to have been ingested, and in a state so as to be positively identified, the time of death could at least be pinpointed to within a few hours from the time of the taking of that food. Therefore, careful questioning by the law enforcement officer to elicit information such as when the deceased was last seen alive, when he was last known to have taken food, of what this consisted, weather conditions at time of the supposed demise, and so forth will materially aid the pathologist in arriving at a reasonable probable time of death. Without such information the pathologist may be unable to say more than, "He was last seen alive on June 1st at 2200 hours and was discovered dead on June 2d at 0930 hours, so he must have died some time between the hours noted on those two dates."

Aiding the Pathologist

In cases of questioned identity, a description of the physical attributes of the deceased may be of immense value to the pathologist, and this information is best obtained, I feel, by the trained law enforcement officer. However, both the officer and the pathologist should be aware of the possibility that the individual furnishing the description may unwittingly or purposely give an erroneous or a misleading one. Then again, in cases of suspected poisoning, the careful collection and preservation of materials recovered at the scene or in the vicinity are essential to the pathologist in making a final determination. Space does not permit here the enumeration of other ways in which a law enforcement officer may render valuable service to the pathologist, but we can affirm that they are numerous.

Reciprocal Aid

The manner in which the pathologist may give valuable aid to the law enforcement officer can be briefly summed up in the statement that, in general, the findings of an autopsy should attempt to clarify the evidence uncovered by the investigating officers and establish not only the cause and mode of death but, if possible, a reasonable sequence of events associated with such a death.

To elaborate briefly, let us assume that a dead body has been discovered and that the condition of the body is such that a positive identification, offhand, cannot be made. Here the pathologist, by using his specialized training, should furnish to the investigators such information as sex, height, and so forth, and also presence or absence of evidence of injury to that body. If the body, for instance, has what appears to be a bullet hole in the head, but the state of the body is such that no determination can be made by superficial examination as to whether it might be a contact, near contact, or a distant wound, or an entrance or exit type, then removal of the necessary structures of that body for preservation and analysis becomes the duty of the pathologist. He can then furnish information as to the presence or absence of "fouling," tattooing, and scorching of bone in or about the wound in the skull, as such was not grossly visible because of the deterioration of the soft tissues surrounding the perforation in the skull. Then, by examination of the external and internal surfaces of the bone, he can estimate the direction in which the projectile traveled.

In cases of gunshot wounds, the pathologist at autopsy should also to supply the investigating officers in-

nation as to the extent of the damage to the tissues, the direction taken by the projectile, the angle of fire and so forth, and whether these findings correlate with each other, as these are of extreme value to the investigators. He should in all cases in which he is requested to perform autopsies be aware of which discoveries may be of value to the investigators and which are nonessential. Then he should report his findings in terms which nonmedically trained personnel can understand. These same principles hold true for his reports on deaths by other means.

It is also part of a forensic pathologist's responsibility to look for evidence of a crime when performing autopsies, as occasionally such has been discovered by an alert pathologist. This type of determination is the special province of a forensic pathologist. The hospital pathologist who is trained only in pathological anatomy and not in traumatic pathology is often completely confused when faced with a crime of violence and is totally unable to cope with the situation.

Problems To Be Met

In situations where a coroner system exists, and particularly where the coroners are apt to be laymen and not physicians, the problems confronting the law enforcement officers are apt to be greater and more complex. In a case in which any doubt of positive solution exists after the initial investigation, the law enforcement officer would do well to urge or insist on the inclusion of a competent physician in the investigation and, if necessary, to request the services of a pathologist as well. To accomplish this may at times be difficult, but it is worth the attempt.

Where a medical examiner system is in effect, such problems are not so great, for then a qualified examiner is, supposedly, always in attendance; but even here, when doubt exists in the mind of the investigating officer, requesting the inclusion of the chief medical examiner of the area, who is usually also a pathologist or who has the services of a forensic pathologist at his command, would be advantageous.

Lastly, the types of cases where the inclusion of an autopsy by the pathologist is of paramount importance to the investigation consist of all homicides or suspected homicides (and in these I believe it goes without saying that an autopsy becomes mandatory); most cases of suicide or suspected suicide, at least all those which cannot be positively resolved in the initial investigation; and some cases of death by accidental means. The need for autopsy in the latter group will, necessarily, be left entirely to the discretion of the personnel conducting the initial investigation.

Autopsy Findings

There are times when it happens that the autopsy upon a victim's body reveals that the cause of death was quite different from that assumed by the initial investigation and where the true cause would not have been discovered without the autopsy.

An illustrative case is that of a young man who was shot in the head by his brother, who used a shotgun loaded with buckshot. The victim, supposedly sleeping, apparently was instantly killed by the blast. The affair occurred in a hunting shack to which the brothers and a mutual girl friend had gone to have a party. Subsequently, the brothers quarreled over the girl, but no violence occurred. The victim, after eating a large meal and having several drinks, stated that he felt somewhat sick to his stomach. He went into the adjacent bedroom, which was unlighted, lay on the bed, and apparently went to sleep. The girl later stated to investigators that, not long after he had retired, she had heard the victim cough and that he seemed to be gagging. However, this quickly ceased so she thought no more about it. The other brother continued drinking, became more unruly, and then suddenly got up, picked up the nearby shotgun, and told the girl he was going to shoot that so-and-so brother of his. After he went into the semidark bedroom, the girl heard a shot. The brother returned and grabbed the girl, telling her that they had to "get out of here quick."

After the crime was discovered the next day, the authorities attempted to apprehend the assailant brother at his parents' home. While he was apparently in the process of surrendering, and was coming down the stairs to the floor below where the officers were waiting, he produced a handgun and fired a bullet into his skull, killing himself instantly.

During this period of the investigation, an autopsy was being conducted on the body of the supposedly murdered brother at a nearby morgue. The autopsy revealed that the respiratory tract of the victim was completely filled with stomach contents, blocking both lungs. The specific food elements found there checked with items the girl stated the victim had eaten at his last meal. In addition, it was determined that this regurgitation most probably could not have occurred at the time he was shot because the shotgun blast had wounded the lower head. Large quantities of blood had settled *on top* of the blocking column of food in his windpipe, but there was *no* blood mixed in with the food below the top surface. Physically, this could not have appeared as it did unless the victim had been dead of suffocation by inhaling regurgitated food *before* his brother shot him. It was therefore unfortunate for the living brother that he committed suicide thinking he had killed his brother when his only crime constituted that of violation of a corpse.

The collection and evaluation of

(*Continued on page 21*)

285-480 O—68——2

A demonstration shows how easily the bar can burn a hole in concrete.

The Thermal Burning Bar

Sources:
Denver Grindel 9/22/67 Bufile #63-4296-13
10/6/67
Cleveland " 9/21/67 " #63-4296-11
Pittsburgh " 6/27/67 " #63-4296-39
Springfield 8/29/67 " #63-4296-52
Little Rock 7/7/67 " #63-4296-25.

A device called a thermal burning bar is described as one of the most effective tools ever seen for penetrating the resistive materials of safes and bank vaults.

The thermal burning bar consists of a 3/8-inch steel pipe filled with 12 rods, 11 of which are steel and one which is aluminum-magnesium alloy. The bar can also be made of an ordinary 3/8-inch pipe filled with welding rods. Manufactured in 10-foot lengths, it has a coupling at one end that can be hooked to the oxygen bottle of an acetylene welding torch. The bar is lighted by heating a point near the open end with an acetylene torch. When oxygen from the bottle feeds through the pipe, it burns in a manner similar to a Fourth of July sparkler and creates intense heat of from 4,500° to 10,000° F.

The burning produces some smoke, but neither the smoke nor heat produced for the short period of operation required would prevent using the bar on a safe contained in fairly close quarters.

The thermal bar is sold through the country and is in demand by con-

The burning bar consumes itself and gives off a spray of sparks as it penetrates tempered steel.

struction companies, steel companies, shipyards, demolition companies, etc. It reportedly is priced from $6 to $9 [illegible] has been retailed in the United States since early 1967.

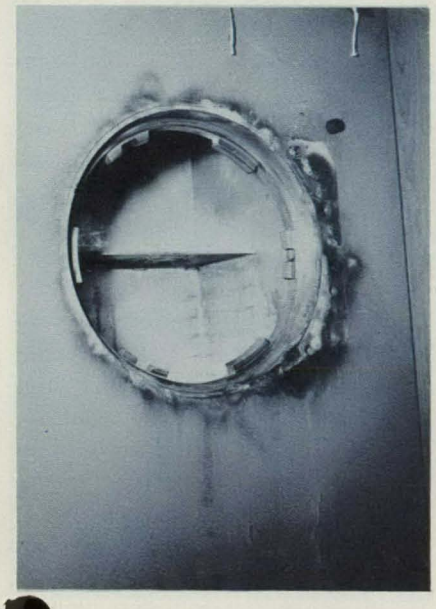
In a demonstration showing the use of the bar, a 14-inch block of concrete was penetrated in approximately 3 minutes, a 120-pound railroad rail was completely cut in 37 seconds, and highly resistive safe materials of the latest design were easily pierced.

A 10-foot section burns for approximately 5 minutes during which time it will cut a hole about 2 inches in diameter through 3½ feet of reinforced concrete.

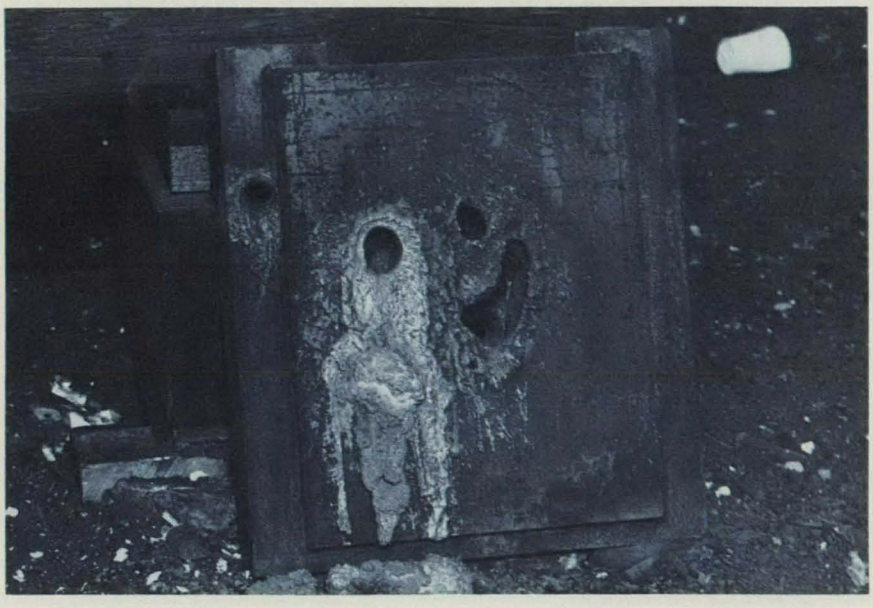
This tool is capable of burning through a 6-inch thickness of tempered steel in approximately 15 seconds.

The bar burns with a minimum of noise, can be operated by one man, and can be operated underwater.

Ordinary wool clothing provides sufficient body protection for the operator, and ordinary dark glasses generally protect him from eye injury.

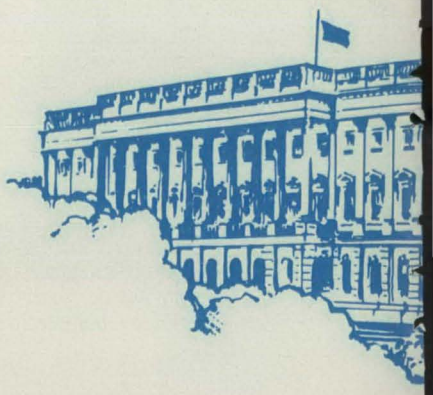


[illegible] supermarket safe was burglarized by thieves using a thermal burning bar.



In a matter of seconds the thermal bar can burn through tempered steel. The above holes were made during a demonstration to test the burning power of the bar.

Search of Premises by Consent



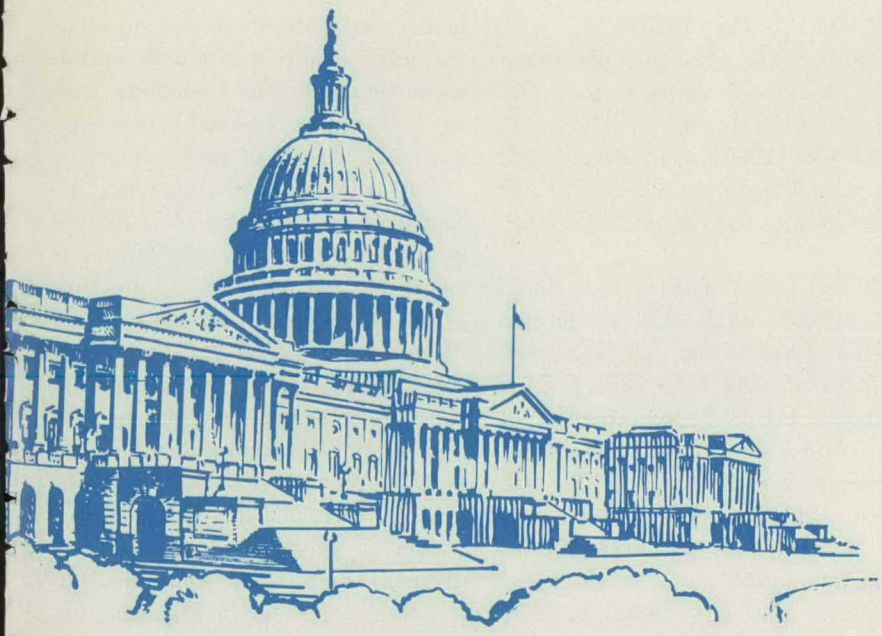
***"Since the Fourth Amendment speaks, not in terms that are absolute, but rather of unreasonableness, it necessarily calls for a continuing reconciliation of competing values. Pre-eminent in the galaxy of values is the right of the individual to live free from criminal attack in his home, his work, and the streets. Government is established to that end, as the preamble to the Constitution of the United States reveals and our State Constitution, Art. I, paragraph 2, expressly says. We want the citizen to forego arms on the strength of that assurance. If the Fourth Amendment is read to frustrate effective law enforcement, government will fail in its primary mission, its promise that the individual shall be secure from attack upon his person and his things."*—Chief Justice Joseph Weintraub, Supreme Court of New Jersey, speaking in *State* v. *Davis*, 231 A. 2d 793 (1967).**

This is the first of a series of articles discussing the Federal law on search of premises by consent. This material was researched and written by Special Agent John A. Mintz, with the assistance of Special Agent John B. Hotis and Insp. Dwight J. Dalbey, FBI Training Division.

I. Introduction

"Search by consent" is an investigative technique frequently used by law enforcement officers where premises are protected against unreasonable search by the fourth amendment to the Constitution of the United States. Properly made, such searches are deemed reasonable and therefore in full accord with constitutional requirements. The utility of this technique and the subtle distinctions which determine its legality require that all investigators at least be familiar with its basic elements.

The starting point for a good understanding of consent searches is the fact that although the law consistently approves of this technique, when legal prerequisites are satisfied, it does not favor it. The law prefers those searches made by search warrant, the intervention of a magistrate pro-



vides the greatest assurance the officers acted in observance of the rights protected by the fourth amendment. The warrant, lawfully issued only upon a finding of probable cause by the neutral and detached magistrate, describes the premises to be searched, shows when they may be searched, and specifies the things that may be sought. Such limitations are not as obvious in a search by consent, and, as a result, the tendency of the courts is to require the searching officer to present convincing proof that his conduct was reasonable throughout.

Proof of this nature is often difficult to provide because of the scarcity of real evidence and the consequent necessity for primary reliance upon testimonial persuasion. If the officer testifies that he received a valid waiver and the person who allegedly gave the consent denies it, the court must look to all the surrounding facts in evidence to determine the issue. Where the facts are not sufficient to make a reasonably convincing case of consent, the law settles the dispute by incorporating a presumption favoring the defendant.

The reasoning here is clear. A person consenting to a search *waives* his constitutional right to be free from search without a warrant or a lawful arrest to which the search is incidental. Since this right is highly regarded, there is a legal presumption (where the facts of the case leave any reasonable doubt) that the person alleged to have consented, in fact, did *not* consent. As has been said many times, the courts ". . . indulge every reasonable presumption against waiver of fundamental constitutional rights." *Johnson* v. *Zerbst*, 304 U.S. 458, 464 (1938). For recent decisions applying this rule to consent situations see: *U.S.* v. *Page*, 302 F. 2d 81 (1962); *Wion* v. *U.S.*, 325 F. 2d 420 (1963), *cert. denied*, 377 U.S. 946 (1964); *Weed* v. *U.S.*, 340 F. 2d 827 (1965); *U.S.* v. *Blalock*, 255 F. Supp. 268 (1966).

Judicial reluctance to credit an alleged waiver of fundamental rights does not call for a pessimistic approach to consent searches. This method of search is upheld frequently where there is inquiry into all the circumstances and an effort to mediate fairly between the interest of society in effective law enforcement and the right of the defendant to his privacy. The presumption against waiver does call, however, for care and understanding in each attempt at search by consent in order to satisfy the requirements of the law. An officer preparing to search under this authority must take four separate steps, each of which is summarized below and discussed at greater length in the material which follows. The four steps and the order in which they should be taken are:

First, determine whether the premises are such that they are protected by the fourth amendment. Some areas, such as open fields and public places, can be searched lawfully without consent, search warrant, or a contemporaneous arrest therein, and any incriminating evidence thus uncovered may be collected and used by the prosecution.

Second, if the premises do enjoy the fourth amendment protection against unreasonable searches, identify the person lawfully entitled to possession at this time. The privacy guaranteed by the amendment is found in the right of possession, not in the legal title to the premises.

Third, obtain from that person a voluntary waiver of the constitutional rights declared in the fourth amendment. The consent should specify the scope and intensity of the contemplated search.

Fourth, conduct the search within the limitations expressed or implied in the consent.

II. Scope of Fourth Amendment Protection

A. When Consent To Search Is Required

If the officer has no search warrant and lacks authority to make a lawful arrest to which a search of the premises could be incident, a reasonable search for fruits, instrumentalities, contraband, and specific items of mere evidence requires consent if the place is protected by the fourth amendment. The amendment speaks of "houses," but this word is broadly defined to include any enclosure used as a habitation, as a place of business, or as a place to store personal effects. The protected "houses" include:

Private dwellings: *Amos* v. *U.S.*, 255 U.S. 313 (1921); *Roberts* v. *U.S.*, 332 F. 2d 892 (1964), *cert. denied*, 380 U.S. 980; *Chapman* v. *U.S.*, 365 U.S. 610 (1961); *U.S.* v. *Mitchell*, 322 U.S. 65 (1944), *reh. denied*, 322 U.S. 770; *U.S.* v. *Hall*, 348 F. 2d 837 (1965), *cert. denied*, 382 U.S. 947. Outbuildings located within the curtilage enjoy the protection extended to the dwelling. *U.S.* v. *Sims*, 202 F. Supp. 65 (1962).

Apartments: *Channel* v. *U.S.*, 285 F. 2d 217 (1960); *Walker* v. *Pepersack*, 316 F. 2d 119 (1963); *Nelson* v. *People of State of California*, 346 F. 2d 73 (1965), *cert. denied*, 382 U.S. 964.

Hotel rooms: *U.S.* v. *Jeffers*, 342 U.S. 48 (1951); *Abel* v. *U.S.*, 362 U.S. 217 (1960); *Stoner* v. *California*, 376 U.S. 483 (1964); *Hoffa* v. *U.S.*, 385 U.S. 293 (1966), *reh. denied*, 386 U.S. 951; *Hall* v. *Warden*, 313 F. 2d 483 (1963), *cert. denied*, 374 U.S. 809; *Johnson* v. *U.S.*, 333 U.S. 10 (1948); *Marullo* v. *U.S.*, 328 F. 2d 361 (1964), *cert. denied*, 379 U.S. 850 (motel room).

Boardinghouse rooms: *U.S.* v. *Feguer*, 302 F. 2d 214 (1962), *cert. denied*, 371 U.S. 872; *Haas* v. *U.S.*, 344 F. 2d 56 (1965); *Cunningham* v. *Heinze*, 352 F. 2d 1 (1965), *cert. denied*, 383 U.S. 968; *McDonald* v. *U.S.*, 335 U.S. 451 (1948).

Guest rooms: (See later discussion under "Guests.") *Jones* v. *U.S.*, 362 U.S. 257 (1960); *Burge* v. *U.S.*, 342 F. 2d 408 (1965), *cert. denied*, 382 U.S. 829; *Woodard* v. *U.S.*, 254 F. 2d 312 (1958), *cert. denied*, 357 U.S. 930.

Offices: *U.S.* v. *Lagow*, 66 F. Supp. 738 (1946), *aff'd.*, 159 F. 2d 245 (1946), *cert. denied*, 331 U.S. 858, *reh. denied*, 332 U.S. 785; *U.S.* v. *Guerrina*, 112 F. Supp. 126 (1953); *U.S.* v. *Blok*, 188 F. 2d 1019 (1951); *Burnham* v. *U.S.*, 297 F. 2d 523 (1961) (combined place of business and home); *U.S.* v. *Zarra*, 258 F. Supp. 713 (1966).

Business building: *Amos* v. *U.S.*, 255 U.S. 313 (1921) (store); *Reszutek* v. *U.S.*, 147 F. 2d 142 (1945); *In re 14 East Seventeenth Street*, 65 F. 2d 289 (1933); *U.S.* v. *Maryland Baking Company*, 81 F. Supp. 560 (1948).

Miscellaneous: *Strong* v. *U.S.*, 46 F. 2d 257 (1931) (barn), *cert. granted*, 283 U.S. 815, *case dis.*, 284 U.S. 691; *U.S.* v. *Smith*, 308 F. 2d 657 (1962), *cert. denied*, 372 U.S. 906 (suitcase stored on premises of another); *Simmons* v. *Bomar*, 349 F. 2d 365 (1965) (house trailer); *Holzhey* v. *U.S.*, 223 F. 2d 823 (1955) (locked storage cabinet); *U.S.* v. *Blok*, 188 F. 2d 1019 (1951) (desk used by employee).

The right of privacy in premises used as a residence extends to the curtilage, defined by Black's Law Dictionary, Third Edition, as follows:

> The enclosed space of ground and buildings immediately surrounding a dwelling house . . . a space, necessary and convenient and habitually used for the family purposes, and the carrying on of domestic employments. It includes the garden, if there be one, and it need not be separated from other lands by fence.

As a general rule, the curtilage should be defined liberally, giving a maximum of protection to the householder, and in the absence of any other authority, a waiver of fourth amendment rights therein (voluntary consent) should be obtained before commencing a search of this property.

The privacy of surroundings, accepted as an integral part of the use and enjoyment of the home, is not as significant a factor where the premises are to be occupied only temporarily, *Marullo* v. *U.S.*, 328 F. 2d 361 (1964), *cert. denied*, 379 U.S. 850 (motel room used by transients has no curtilage); or for nonresidential purposes, *Giacona* v. *U.S.*, 257 F. 2d 450 (1958), *cert. denied*, 358 U.S. 873 (business premises have no curtilage). These rules seem open to question, however, in any situation where the tenancy is for residential purposes and for an extended time or the business premises are fenced or otherwise enclosed in any manner indicating an intention to bar all unauthorized access.

B. Consent Not Required

The protections of the fourth amendment have not been extended to those areas of private property beyond the curtilage described as "open fields"; therefore, consent to search such places is unnecessary as there are no constitutional rights to be waived. *Hester* v. *U.S.*, 265 U.S. 57, 59 (1924). This is an important concept because, under the open fields doctrine, officers acting within the scope of their authority are not prohibited from trespassing on such areas and any information or real evidence they can acquire in this manner may be used to justify the issuance of a search warrant for the protected portion of the premises or to justify an arrest; and it may be used as direct evidence in a prosecution.

The most obvious application of the

Open fields doctrine occurs where officers enter farmland, woods, or pastures related to a rural dwelling. Though it is a technical trespass, the officer's presence is not constitutionally prohibited, even where such areas are surrounded by a boundary fence. *U.S.* v. *Sims*, 202 F. Supp. 65 (1962). See, also, *U.S.* v. *Young*, 322 F. 2d 443 (1963), *cert. denied*, 375 U.S. 952 (1963); *U.S.* v. *Benson*, 299 F. 2d 45 (1962); *Janney* v. *U.S.*, 206 F. 2d 601 (1953); *Martin* v. *U.S.*, 155 F. 2d 503 (1946).

Other places not protected under the fourth amendment and which may be searched without obtaining consent are: unoccupied buildings, *U.S.* v. *Romano*, 330 F. 2d 566 (1964), *cert. denied*, 380 U.S. 942, *reh. denied*, 381 U.S. 921; abandoned dwellings, *U.S.* v. *Thomas*, 216 F. Supp. 942 (1963); and fields used for a commercial enterprise, such as an open air nursery for plants and shrubs, *U.S.* v. *Sorce*, 325 F. 2d 84 (1963), *cert. denied*, 376 U.S. 931.

time. Note that the key word here is "possession," not ownership. The fourth amendment is not concerned with legal title to the premises; what it guarantees is the right to possess one's home, office, or other protected place free from unreasonable invasion by the government. *Cantrell* v. *U.S.*, 15 F. 2d 953 (1926), *cert. denied*, 273 U.S. 768; *Jones* v. *U.S.*, 362 U.S. 257 (1960); *Chapman* v. *U.S.*, 365 U.S. 610 (1961). The amendment does not provide absolute protection against all searches but clearly prohibits only those stamped "unreasonable." When the need to search for the fruits, instrumentalities, contraband, or evidence of crime is compelling, a reasonable search may be conducted provided only that the officers do not act arbitrarily. They must submit their claims of probable cause to a magistrate for testing, and, if found sufficient, a search of even the most secluded premises may ensue. Though these constitutional rights generated by the fourth amendment are personal

***"The steady increase in the number of serious crimes throughout the United States is a matter of grave concern. Of course, the constitutional rights of the individual should be protected. But in our zeal to safeguard those rights, we must not be unmindful of the public interest involved and we should not erect any unnecessary barriers that will thwart the law enforcement officers in the performance of their duties to investigate, detect and secure evidence of crime."*—Judge Orie L. Phillips, U.S. Court of Appeals, Tenth Circuit, in *Hollingsworth* v. *U.S.*, 321 F. 2d 342 (1963).**

III. Who is Lawfully in Possession of the Premises?

When the officer in charge of the search learns that the premises are of a type protected by the fourth amendment, his next step is to determine who is in lawful possession at this

and must be claimed individually, the warrant directing an invasion of protected premises is not at all concerned with persons. The command is to ". . . search forthwith the *place* named for the property specified . . . ." [Emphasis added.] It is not necessary for any person (other than the officer), known or unknown, present or otherwise, to be involved in order for the search to be reasonable. The search is literally directed against certain premises reasonably believed to contain items offensive to the law. In some cases, stolen goods may be recovered from their hiding place in protected premises through the medium of a reasonable search, and yet the identity of the thief as well as that of the occupant of the premises may remain completely unknown.

The law has not interpreted the fourth amendment warrant requirement as being the only touchstone of reasonableness in searching protected premises. Officers lawfully in a dwelling incidental to a bona fide arrest therein have authority to conduct a reasonable search of the home (without a search warrant) to uncover known fruits, instrumentalities, or evidence of the crime charged. Their search authority is coextensive with the possession or control exercised in the premises by the arrestee. This reasonable search is not made any less so because the arrestee shares the possessory right with his spouse, business partner, or other joint occupant. Evidence discovered during the course of searching the appropriately delimited area may be collected and is admissible against anyone whom it may incriminate. Such a search may well become unreasonable to the extent that the officers press their examination of the premises beyond those areas clearly in possession of the arrestee or which he occupies jointly, but, when restrained to the areas so possessed or controlled, it is consistent with the requirements of the fourth amendment.

Moreover, the law recognizes as reasonable those searches made with the consent of one having possession of the specific place against which a search is directed. Consent is the pass by which the tollgates of fourth amendment restrictions are traversed.

It puts the officers lawfully on the premises and permits their search, limited only by the bounds expressed in the consent and by the physical extent of the area in present possession. Once again, the fact that possession is held jointly is not fatal to the reasonableness of the search, for in reality the one expressing consent does not assume to speak as the alter ego of his cotenant. He speaks for himself as one in possession. His invitation to the officers lawfully commits the premises to their inspection, and, as this is deemed a reasonable search for fourth amendment purposes, the results are admissible in evidence not only against the consenting party himself but also against the cotenant and anyone else.

The word "possession," in the fourth amendment sense, means not actual physical occupancy but the legal right to occupy or possess at this moment—the right to exclude others. Mere lawful presence is not enough to establish a possessory interest, and officers may not rely on the "apparent authority" of someone found within to make the consent search reasonable. The test imposed is whether consent was given by one having actual authority. *Cunningham* v. *Heinze*, 352 F. 2d 1 (1965), *cert. denied*, 383 U.S. 968; *Stoner* v. *California*, 376 U.S. 483 (1964); *Cipres* v. *U.S.*, 343 F. 2d 95, 98 (1965).

A person remains in legal possession of his premises even while temporarily residing elsewhere or absent because of business or vacation travel. *U.S.* v. *Novero*, 58 F. Supp. 275 (1944); *Roberson* v. *U.S.*, 165 F. 2d 752 (1948); *Steeber* v. *U.S.*, 198 F. 2d 615 (1952); *U.S.* v. *Brougher*, 19 F.R.D. 79 (1956). If the premises are to be searched by consent during this interim, the authorization must be obtained from some other person who exercises possessory authority as an agent for the owner or who has equal possessory rights. See later discussions of "Partner," "Husband and Wife," "Agent," and "Joint Tenants and Common Occupants."

The problem of determining who has the possessory right to the premises to be searched is not complex in all cases. For example, if the accused is the only tenant of a hotel room, that room is the place to be searched, and he is in the room when the officers arrive, the problem is easily resolved. The accused is the person entitled to possession, and he is there. His consent, and his only, will permit a lawful search. But the relationship of human beings to specific premises, and to each other, are subject to so many variations that officers frequently encounter situations of far greater difficulty. To obtain effective consent to search, the officer must determine "who" can legally consent to "what." This can best be understood by examining each of several relationships which the accused (the person most likely to be incriminated by the evidence sought) may have to protected premises and personal property therein, i.e., what he legally possesses and what he does not.

(To be continued in March)

D.D.L. #812, Bufile #95-126846

A MATTER OF COLOR

A 15-year-old boy was the victim of a hit-and-run accident in which the car was described as a red Ford. Police located no physical evidence at the scene of the accident until the next day, when they found red paint flakes nearby. Officers sent the flakes—along with the victim's clothing—to the FBI Laboratory in Washington, D.C., for examination.

FBI experts examined the red paint flakes and concluded that it was highly unlikely they originated from a Ford automobile. Careful examination of the victim's clothing disclosed minute blue-green smears and crushed deposits of a medium blue-green metallic paint and suggested to investigating officers that they attempt to locate a Ford similarly painted. With the publicity regarding the change in the color of the car, a 38-year-old man turned himself in to authorities. This man, whose license had previously been suspended for drunken driving, was charged with negligent homicide and sentenced to serve 6 months in the county jail.

Indianapolis crimdel 11/8/66
Bufile #62-4296-21.

GROWING OLD—UNGRACEFULLY

There is no age bracket in which one can place a shoplifter, nor is there a limit on the type or amount of merchandise a shoplifter will take. Individuals ranging in age from 8 to 80 have fallen into temptation. One such person was a 70-year-old woman who jammed 41 cartons of cigarettes into a pillowcase sewed inside her coat before a store security guard stopped her.

Kansas City crimdel 7/17/67
Bufile #63-4296-23

REMODELING PLANS

Burglars in a bottling company office in a midwestern city took unusual precautions to conceal their activities. They used large sheets of brown wrapping paper to cover all doors and windows facing the street. As a final touch they posted a sign on the front door reading, "Closed for Remodeling—Use Other Door."

(*Continued from page 6*)

wheels were removed from the Impala for examination. Only the right front, in the heavily damaged area, was deflated. Rim damage of wheel was severe, including a 5/16-inch round, bulletlike hole punched clear through the rim edge. See exhibit 6. The tire bead was loose from the rim seat all around on both sides. Close examination of the outside of the tire failed to show any leak in it. The tire was then removed from the rim. It showed no damage inside. Then it was mounted on the rim from the spare tire and inflated. It held air under pressure indefinitely. Finally, four observers were asked to try to determine which of the four tires on the car at the time of collision was the one in the damaged area. All had to guess; none guessed correctly.

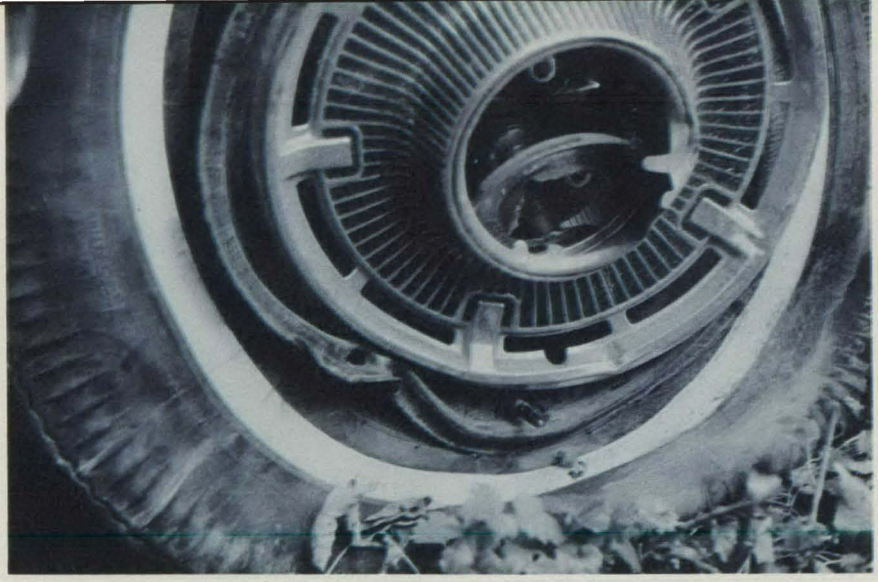


Exhibit 6: Among damages to this wheel was a hole in the rim. The tire on it possibly lost air before collision.

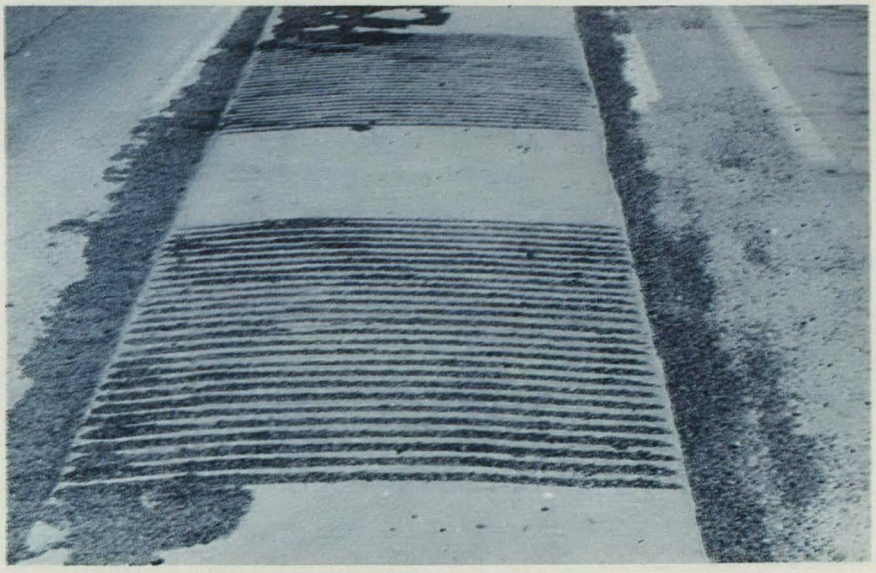


Exhibit 7: The car moved nearly sidewise across these corrugations in the median.

Logical Explanation

Then, what about the people who independently reported distinctly hearing the noise of a blowout? There is an entirely logical explanation. Since the right front side of the Impala struck the Ford, which was close to the median, the Impala would have had to be moving nearly broadside when it crossed the median. It would tend to roll to the right, putting extra weight on its right wheels. The right front tire would strongly engage the cross corrugations in the median (see exhibit 7) and develop a heavy side thrust that could pull the tire bead off its rim seat. Then the air inside would escape suddenly with an explosive noise. This is doubtless what the waiting motorists heard.

Thus, tire disablement was eliminated as a factor contributing to the cause of the accident. Better explanations of the vehicle's unusual behavior would have to be sought.

Case E

Circumstances: Late at night on a straight, level, clean, dry, two-lane bituminous-concrete stretch of a U.S. highway, Unit 1, a Buick, was southbound and Unit 2, a Chevrolet, was northbound. Both were traveling about 60 miles an hour.

They collided and came to rest nearly side by side across the east edge of the roadway at the right of Unit 2's lane. About the middle of Unit 2's lane (northbound), and opposite the spot where the cars came to rest, were tire scrubs, surface gouges, oil spatter, and considerable underbody debris, A in exhibit 8.

Leading to the collision area from the south and about in the middle of Unit 2's lane were clear, fresh skidmarks, B in exhibit 8. From the north, beginning on the west edge of the roadway, were three clear, curved tire marks leading across the south-

bound lane (Unit 1's) and the center line to the collision area, C in exhibit 8.

There were no witnesses. Both drivers were killed. A surviving occupant of Unit 1 had no recollection of what occurred. Before daybreak the wrecks had been hauled away, debris had been swept from the roadway, and everybody who had stopped at the scene for any reason had departed.

Comments on the official police report, filed the next morning, were brief and conclusive: "Unit 1, southbound, went across the centerline and hit Unit 2, northbound, head on. Unit 2 left skidmark in its lane before collision." The row of boxes to be checked for "contributing violations" had "none" for Unit 2. For Unit 1, "over left of center" was marked.

Problem: From the police report one would conclude that Unit 1 was simply driving the wrong way in Unit 2's lane, or at least rapidly encroaching on Unit 2's lane. But why? And is that really the whole story?

Analysis: The site was examined carefully by daylight 2 days later. Interesting additional tire marks were discovered. There were one set of marks some distance to the north and another set to the south. Perhaps they had been overlooked in the dark; if not, they had apparently been ignored. Although faint, they were photographed by daylight. In the exhibits these marks have been accentuated so that they will show in the small reproductions of the photographs.

To the south, alined with, but not connected to, Unit 2's precollision skidmarks, was a set of three light tire marks, each less than an inch wide. They straddled the centerline and angled northward from west to east, F and G in exhibit 9. The vehicle leaving them had been at least 4 feet to the left of the centerline. These are not skidmarks from locked wheels like those at B. They are the left edges of

Exhibit 8: Point A marks gouges and spatter at collision point in Case E; B points out approach skidmarks of Unit 2; and C indicates approach yaw marks of Unit 1.

tires scuffing sidewise as the car is steered sharply to the right. The westernmost mark at F would have been made by the left rear tire; the one next to it by the left front. Ma[illegible] G would have been made by a right tire, probably the right front.

The distant tire marks to the north

Exhibit 9: In the daylight these yaw tire marks were found south of the collision point.

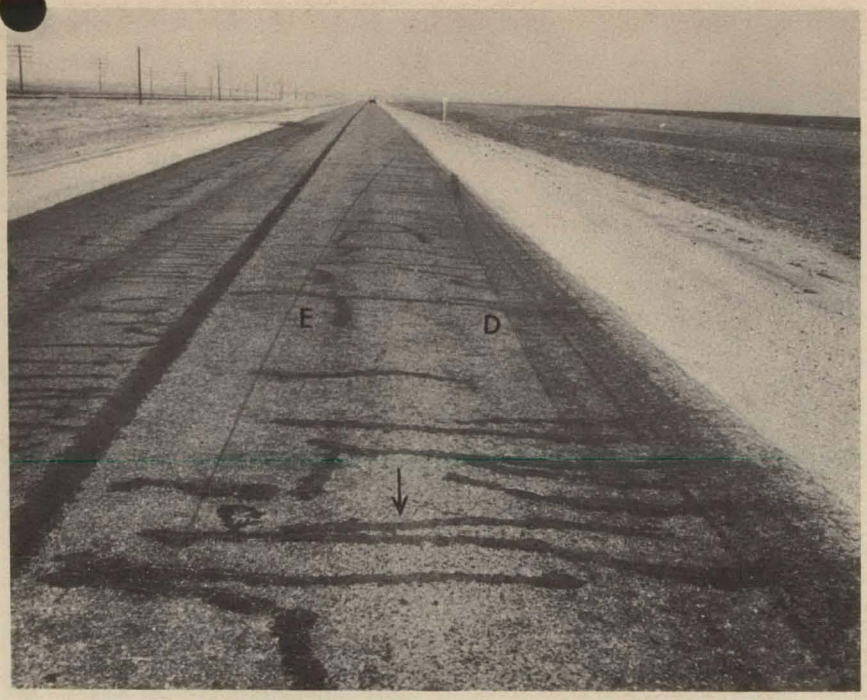


Exhibit 10: The next day these additional marks were found north of the collision point.

pear at D and E in exhibit 10. They gin as narrow, critical-speed scuffs of a car steering sharply to the right toward the west shoulder. Just before leaving the pavement, mark D widens, darkens, and shows rib marks; that is, it becomes a skidmark.

By daylight a clear, light, narrow mark, H in exhibits 8 and 9, was also visible. It was adjacent to, and nearly parallel to, the east skidmark at B in exhibit 8.

Now, what more can be inferred about the accident from these observations of additional tire marks? To begin with, they are shown on a map of the situation after the accident, exhibit 11.

Tire marks D and E to the north explain why Unit 1 came so suddenly across the southbound lane from the west shoulder leaving the critical speed scuffs or yaw marks at C. They tell a story of evasive action. The driver of Unit 1 appears to have seen a car encroaching on his lane, presumably the car that left marks F and G to the south. He applied brakes and steered the car to the right. The turn to the right shifted weight from the right tires to the left. Additional weight on the left gave more traction on that side and so, with the amount of brake-pedal pressure applied, the wheels continued to rotate. But they did leave a slight edge friction mark. The underloaded right wheels, however, had less traction and so were stopped by the braking effort at the edge of the pavement where the mark at D becomes a definite skidmark. There the right wheels moved off of the pavement onto the shoulder.

But then a dismaying thing happened. The braked left wheels on the pavement, carrying more weight, developed about twice the drag of the right wheels carrying less weight on loose gravel. With this much difference in drag between the two sides of the car, the left side slowed much more rapidly than the right. That made the car swerve sharply across the road and the centerline to the collision point. In 1 second the driver had no time to think what to do about this swerve and to start doing it.

Marks F and G, to the south, line up with the skidmarks at B. Does this mean that Unit 2, northbound, was over the centerline in Unit 1's lane and swerved back into its own lane just before collision? If so, to leave the gap, the driver would have had to straighten out his front wheels and, after an instant, apply brakes hard to produce the gap. In the fraction of a second available, this would be a very unlikely maneuver.

The two skidmarks at B must have been left by Unit 2; they stop abruptly exactly at the collision point. Mark H was assumed at first to be the lighter skidmark of the right rear wheel of Unit 2. But why should only one rear wheel leave a mark and why only its right edge? Closer examination shows that this mark does not stop where the

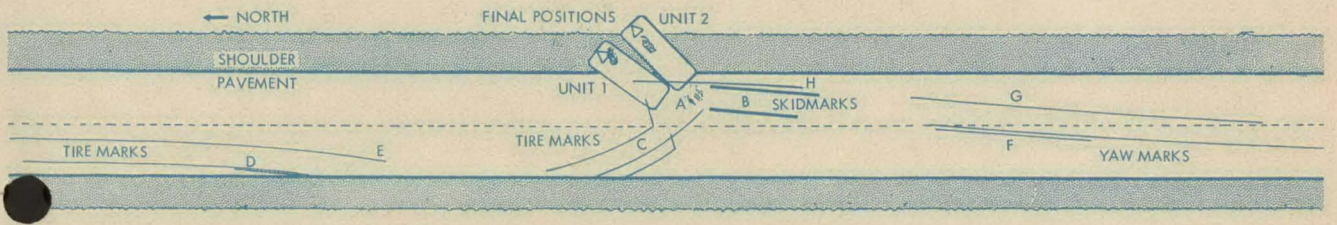


Exhibit 11: After-accident situation map shows final positions of vehicles and all marks on road.

wheel would be at the moment of collision but continues evenly about 15 feet beyond the end of the front wheel skidmarks. This rules out any hypothesis that it was made by Unit 2.

Mark H curving to the left does line up well, after a gap, with mark G turning to the right. If the same car left them, it would have been northbound in its left lane at a high speed. It would have steered to its right sharply enough to leave yaw marks F and G. Then, to avoid running off the road at the right, it straightened out, leaving a gap between G and H, and steered left leaving the yaw mark H. This can only mean that the tire marks at the accident site were made by three cars, not just the two which collided.

There is no proof that marks F, G, and H were not made hours before the collision or even after it. But the chance that those exact marks were made at this exact point without any connection with the accident are so small as to make that idea incredible.

Pieces of the reconstruction puzzle now fall satisfactorily into place. An unknown car overtook Unit 2 with Unit 1 approaching closely. Unit 1 steered right and braked to give this unknown car time and space to clear. But this maneuver took it to the shoulder where events already inferred took place, leading it into the path of Unit 2. The movement of Unit 2 to the right and braking were probably also to give the unknown car time and space to get back into its lane because, when the reaction for this movement began, Unit 1 had not yet started the swerve back onto the road.

Conclusion

Unfortunately, these cases are not isolated examples of what may happen when well-intentioned, but ill-tutored police venture into accident investigation beyond gathering the specific information required on the official report form. Reviewing cases such as these reveals many common weaknesses, such as those which follow.

Inability properly to identify marks on a road or damage to vehicles; for example, characterizing any tire mark on the road as a skidmark.

Neglect to try to match gouges and scratches on the road with corresponding abrasion marks or other damage to vehicles.

Failure to make or report meaningful measurements. For example, "Forty-two feet of skidmarks were measured" is an inadequate report. Is it the distance from the beginning of a rear tire mark to the end of a front one, or is it the distance one tire slid? Was there only one skidmark 42 feet long, or was this the total length of several skidmarks combined? Another example of a common measurement failure is, "Car came to rest 42 feet from point of impact." This measurement locates neither the car nor the point of impact on the road. The point of impact is usually a matter of opinion; it is not a permanent landmark which can be tied in with later surveys.

Fact or Opinion

Stating opinions or explanations as fact. This lack of a clear distinction between fact and opinion is usually the result of carelessness, such as reporting the inferences and explanations of others without clearly identifying them as such, jumping to conclusions without sufficient foundation in observations or logic in deductions, not labeling speculative possibilities as such, and uncritically reporting a standard violation for all accidents involving certain circumstances; for example, following too closely for all rear-end collisions. Most such statements occur in the description of what happened.

The effects of such faulty investigations are far reaching. Perhaps the most conspicuous are connected with negligence claim settlements. Because of erroneous or ill-founded statements on official reports, unjustified claims are often filed. Such statements creeping into testimony also mislead juries in their search for truth.

Less frequent, but more distressing, criminal proceedings—even charges of reckless homicide—may be instituted on the basis of investigators' unwarranted assumptions.

Hopefully, during trials, misleading assumptions in traffic accident reports will be detected and corrected, but there is no guarantee that this will happen. Whenever mistakes are exposed in court, the investigator and his department are embarrassed, and public confidence in official investigations is undermined.

Research and Study

Other effects are more subtle. Police investigation reports are being used more and more for research and guidance in accident prevention programs. But how well do they supply data needed for the study of individual accidents by accident reconstruction? In general, at present, not very well. Except for those made by specially trained investigators, reports of observations are not sufficiently uniform, complete, or accurate to be a dependable source of case data.

Can these reports be relied on to contribute facts to help determine accident causes? Not if a substantial part is essentially guesswork. Police have neither the time, training, nor equipment for cause analysis.

If extensive use is to be made of police investigations beyond basic accident reporting to guide in the design of new safety programs, much additional technical training must be provided for investigators. Investigators involved in criminal investigations will need scientific training at the university level.

(*Continued from page 9*)

trace evidence in the form of residues of foreign materials in locations connected with a crime are also admittedly important to a criminal investigation. The discovery of accumulations of identical material upon or within the body of a victim of a crime then becomes of paramount importance. Discovery of such elements on or within a body being autopsied is the specific province of the pathologist. It therefore behooves him to carefully examine not only the surface of a body but also the scalp and the hair, under the nails, in the mouth, and so forth to note if any foreign material, visible to the naked eye or by magnification of a hand lens, is present and, if so, to carefully preserve this in adequate containers. We use small clear plastic boxes or close-fitting covered plastic petri dishes for this purpose. For further examination, these containers are principally viewed under a stereomicroscope and the contents recorded.

Wound Examination

It is also good practice to excise and preserve all gunshot and stab wounds, both entrance and exit, particularly when these have occurred on a clothed body, but it is well to include the unclad ones also. As an illustration, we present the case of a teenage boy who was shot through the upper torso by an assailant utilizing a 30-caliber rifle while in the presence of four witnesses. These witnesses, along with the assailant, when questioned by the authorities regarding the events directly preceding the act, all stated that the victim was advancing on the assailant during an argument and that he was, therefore, shot in the upper chest in self-defense by the assailant. Incidentally, the boy was also armed as he had been one of a hunting party, but whether or not he was carrying his weapon at the time he was shot is not known.

The boy was clad in the usual amount of clothing for cold weather—a hunting jacket, a shirt, and an undershirt. When we viewed the body at autopsy, the investigating officers and I were of the opinion that the wound in the left mid *back* was the *entrance* wound and that the wound at the base of the neck in *front* was the *exit* wound. This was quite evident to all of us, but we felt that anything more we could find out about these wounds would be advantageous for adequate justice, inasmuch as all the witnesses had stated the entrance wound was in front.

Consequently, the two wounds were excised, including the deep tissues attached to the skin. From the wound in the back, we isolated various clothing fabric fragments and fibers. These were compared with the fabric fibers of the garments the boy was wearing on his upper body, and we found that all the fabric fibers in the wound in the back matched the fibers from the samples of clothing he had worn. As for the wound in front, *no* fabric fibers were located there, but there were fragments of bone just beneath the skin, where they had been driven by the bullet passing through the top of the breastbone beneath. This trace evidence, along with the physical appearance of the two wounds, showed positively that the boy had been shot in the back, that the bullet had passed through his body from *back* to *front* and not from *front* to *back* as the witnesses had stated, and that he most probably did not know that he was going to be attacked by his assailant. Presentation of the accumulated evidence caused the witnesses to retract their previous statements.

In another case the accumulation of foreign material as trace evidence gave valuable assistance to the investigation as tc the manner in which a crime had been committed. It was suspected that the victim, whose body had been recovered from the Connecticut River, had been placed there, bound hand and foot, while alive and that he had died by drowning.

The defense claimed that the decedent had bound his own hands and feet and had then thrown himself over a high bridge railing into the water, thereby committing suicide. How he could have accomplished all this routine appears to constitute a modern miracle. However, one of the suspects owned a motor vehicle with a large rear luggage compartment. This contained various small articles, one spare tire, and a large accumulation of dust and other foreign material. The space was large enough to hold a body the size of the decedent easily. The investigators of the case had reason to believe that the body had been conveyed to the river in this compartment after being bound. Whether the decedent was alive at the time or not was not initially known.

Murder Not Suicide

It was possible through extensive examination of material obtained from the compartment by vacuuming it, the decedent's clothing, and the rope used to bind him to match these numerous foreign particles and thereby quite reliably assume that the body of the decedent had, in effect, been transported bound for a period in the trunk of the vehicle.

At the time of the autopsy on the body, the lungs and entire respiratory tract were isolated in a manner to close off the upper windpipe, and then the whole tract was transported intact to the pathological laboratory. Extensive examination of the windpipe and bronchial tree of the lungs resulted in recovery of numerous bits of foreign material which could be matched identically with those items obtained from the trunk of the suspect's vehicle. This

was sufficient to give an opinion that the decedent had inhaled into his lungs and air passages portions of the identical material found in the trunk of the suspect's vehicle and had been placed in the river when alive. All of this led to only one conclusion—that he had not committed suicide by drowning but had, in effect, probably been murdered.

Accidental Death

In conclusion, in cases where death by hanging has occurred in adolescent or young adult males, I would strongly urge that a most thorough investigation be undertaken to uncover as much data relative to the death as can be accomplished before writing off the case as a death by suicide because, when all the facts have been gathered, it may be found that the death was actually the result of an accidental strangulation.

In the past uninformed State's or district attorneys have summarily written off such deaths as suicides. In the investigation of such cases, the services of a trained forensic pathologist, if only as a consultant (as often here an actual autopsy may not be necessary), may be of considerable va[illegible].

In many of these cases a full investigation has revealed that death resulted while the victim was engaged in autoerotic sexual stimulation by employment of a noose or loop of material as a psychic and, most probably, physiologic stimulus. In these cases death was not anticipated, but an unintended excessive compression of the neck tissues and vessels resulted in a loss of consciousness during the erotic climax, with death supervening. In the State of Vermont there have been nine such verified cases in the past 15 years.

San Fran. ltr 8-14-67 re: FBI LEB, Proposed Article of Interest to Law Enforcement.

Exterior Mounted Microphone

An innovation in the field of communications designed to make the job of law enforcement officers safer, easier, and more efficient has been accomplished by Chief of Communications Allen Wong and Captain of Patrol Joseph Page of the Napa County, Calif., Sheriff's Office.

A weatherproof microphone mounted on the front of a patrol vehicle and an all-weather speaker under the hood enable the officer to be in much quicker and closer contact with his dispatcher and other cars.

In the past it often has been difficult and always time consuming for an officer at the scene of any incident to be constantly getting in and out of the police vehicle to use the radio, and often the microphone would be left hanging on the door. In 1966 two police officers in California were shot to death while on a routine car stop because of this inconvenience. One of the officers was found inside the police vehicle with the microphone in his hand. Possibly, he would have had time to call for help from the outside.

Capt. Joseph Page and Chief of Communications Allen Wong (in background) are the inve[illegible] of the outside microphone for police cars.

In another recent case involving a search for two escaped prisoners who had kidnaped a deputy sheriff, a microphone dropped on the seat after an officer had used it from outside the car activated and jammed the system for some 10 minutes until a fuse burned out.

The new microphone is encased in a high-impact, noncorrosive plastic housing with a push-to-talk switch and a transmitting indicator light, all weatherproofed. The output level is the same as a regular microphone. A dash-mounted control box is installed near the radio control head and consists of a light to indicate outside use and a three-position switch. One position is for normal use, one for the outside microphone and speaker, and the other for speaker use only.

The set is wired so the outside microphone and speaker may be used when the ignition is off and thus is available when the ignition keys have been removed. In normal operation the set is silent when the ignition is off.

These microphones have been in use on nine patrol cars in the Napa County Sheriff's Office since October 1966. Operating costs have been very small and so far no vandalism has occurred. The microphones may be used on any make of radio.

Captain Page tests the dash-mounted control box of the outside microphone and speaker.

Officers of other law enforcement agencies have shown marked enthusiasm for the microphone.

San Antonio Crimdel 7/11/67
Bufile #63-4296-45.

COMFORT AND COVER FOR DICE GAME

Large tractor-trailers normally used to haul perishable produce have been used by one gambler for the operation of his floating dice game—with the cooperation of the truckdrivers.

By opening the vents in the van and occasionally starting the refrigeration unit, air-conditioned comfort is provided for the players. A gasoline or butane lantern provides the necessary light.

A different trailer is used each night. Since there are always a large number of trailer rigs parked on the truck stop lot, the gambling rig is difficult to detect.

CARRIER STICKERS

The Federal Bureau of Investigation has available for distribution a sticker advising that thefts from interstate shipments are investigated by this agency and that such violations should be immediately reported to the FBI. The violation is punishable by a maximum penalty of 10 years' imprisonment and/or a fine of $5,000.

Interested agencies or firms may obtain the stickers for interstate carriers free of charge on a limited basis by writing to the Director, Federal Bureau of Investigation, Washington, D.C. 20535.

Phoenix Crimdel 5/26/67
Bufile #63-4296-38

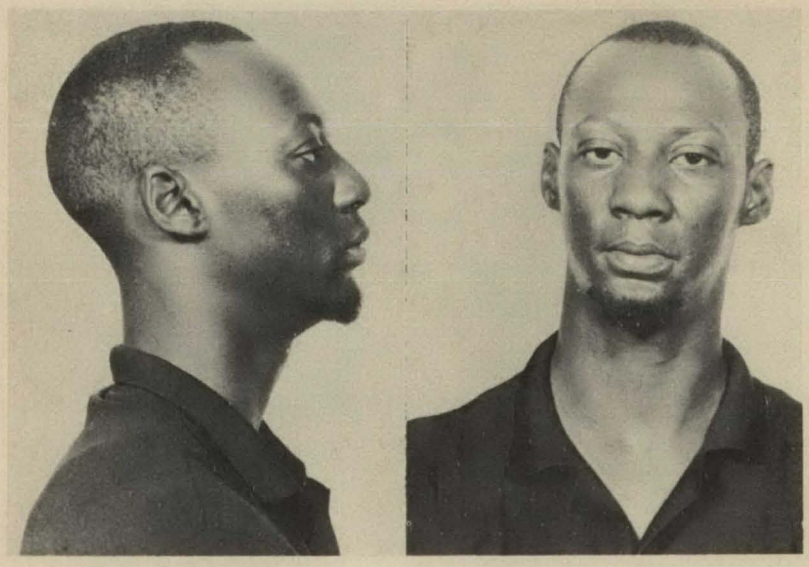
FREE GARDENING SERVICE

A surprised housewife had an offer by local police to weed her garden free of charge.

Among the regular vegetables and flowers growing in the garden the officers—who were detectives of the Special Investigations Bureau—pulled up 23 marihuana plants ranging in height from 8 inches to 32 inches.

The gentle, white-haired housewife said she saw them growing there but couldn't imagine what they were. The plants were destroyed, and the housewife was asked to be on the alert for any more that might sprout.

WANTED BY THE FBI



JOHN CONWAY PATTERSON

Interstate Flight—Murder

JOHN CONWAY PATTERSON is being sought by the FBI for unlawful interstate flight to avoid prosecution for murder. A Federal warrant for his arrest was issued on July 30, 1966, at East St. Louis, Ill.

The Crime

On July 30, 1966, Patterson and an accomplice allegedly entered a liquor store in East St. Louis, wielded revolvers, and demanded the money from the cash register. One of the proprietors sounded a burglar alarm as the robbers stuffed the loot into their pockets. The gunmen tried to escape through the front door, but were confronted by two police officers responding to the alarm. The robbers seized the two storeowners to use as shields. In the ensuing gun battle, one officer was killed and the other seriously wounded. The accomplice was quickly apprehended, but Patterson reportedly escaped in a getaway car parked nearby.

The Fugitive

Patterson is also wanted by local authorities for alleged participation in several armed robberies and burglaries. He has previously worn a goatee and has been employed as a carpenter and laborer.

Description

Age	23, born Jan. 28, 1945, St. Louis, Mo.
Height	6 feet 1½ inches.
Weight	175 pounds.
Build	Medium.
Hair	Black.
Eyes	Brown.
Complexion	Medium.
Race	Negro.
Nationality	American.
Scars and marks	Scar inner side of left elbow, scar inner of left wrist.
Occupations	Carpenter, laborer.
FBI No.	84,587 E.
Fingerprint classification	17 O 32 W 000 I 30 U OII

Caution

Patterson should be considered armed and dangerous.

Notify the FBI

Any person having information which might assist in locating this fugitive is requested to notify immediately the Director of the Federal Bureau of Investigation, U.S. Department of Justice, Washington, D.C. 20535, or the Special Agent in Charge of the nearest FBI field office, the telephone number of which appears on the first page of most local directories.

Pittsburgh crandel 3/28/67
Bufile #63-4296-39.

HIJACKING FOILED

Two men in a sedan attempted to flag down the driver of a large truck loaded with valuable copper wire and fittings and then pulled onto the highway ahead of him. When a man got out of the passenger side of the sedan waving his arms, the truck slowed to a stop.

Approaching with his hand in his pocket and claiming to have a gun, the man ordered the driver out of the truck. Meanwhile the driver of the sedan backed up on the highway to the rear of the truck.

A can of starting ether, which is used to start big truck units and is capable of producing burns, was on the seat beside the truck driver. He grabbed the can and sprayed the face of the holdup man. As the holdup man blindly ran back to the sedan, the trucker drove off and stopped at the nearest service station to notify the State police.

U.S. GOVERNMENT PRINTING OFFICE: 1968 O—285-480

FOR CHANGE OF ADDRESS

Complete this form and return to:

DIRECTOR
FEDERAL BUREAU OF INVESTIGATION
WASHINGTON, D.C. 20535

(Name) (Title)

(Address)

(City) (State) (Zip Code)

Casper to Mohr Memo 12-6-67 re: Law Enforcement Conferences 1967.

FBI CONFERENCES HELD

Conferences sponsored and conducted by the FBI for the benefit of local law enforcement were held during the months of September, October, and November 1967 in all parts of the country. A total of 275 conferences were held with 21,695 persons representing 6,780 law enforcement agencies in attendance.

The conferences of 1967 concerned the National Crime Information Center and Legal Decisions Affecting Law Enforcement.

Explanations of the operation and significance of the FBI's new computerized electronic data-exchange network elicited particularly favorable comments.

Representatives of law enforcement from all over the country attending the conferences acknowledged that this center is a formidable ally in the fight against crime, as it transmits to the local officer in a matter of seconds information he needs from the repository of data regarding offenses and offenders and permits him to make an arrest where otherwise an offender possibly would never be held.

One officer in commenting on the results of the conferences quite aptly summarized the general feeling of all who attended when he indicated the creation of the National Crime Information Center is just as important to law enforcement as the use of fingerprints in identification matters.

A very vigorous interest was shown also in the legal aspects of the conferences as they relate to law enforcement. Local law enforcement officials, prosecutors, and judges as well as FBI representatives participated in the program.

Unquestionably, police officials present at the conferences had been "doing their homework," as the range and perception exhibited by their very spirited questioning indicated a broad knowledge of legal problems and a serious concern as to the direction legal decisions might take in the future. Many officers attending the conferences expressed their appreciation that the range of information covered in the legal decisions phase of the program encompassed both State and local decisions and opinions, and they felt the presence of local prosecutors aided in the clarification of legal matters as they affected local departments.

The series was another phase of the FBI's continuing program of offering cooperation and assistance to local and State enforcement agencies to promote effective law enforcement at all levels.

San Juan crimdel 5/26/67, Bufile #63-4296

NOTE THAT UNIFORM

A bill forbidding any unauthorized person to wear a uniform resembling a police uniform was signed into law by the Governor of Puerto Rico in 1967. The purpose of the legislation is to eliminate any difficulty by the public in quickly identifying police officers.

Honolulu crimdel 6/15/67

HAWAIIAN JUSTICE

Bufile #63-4296-18

During the 1967 session of the Hawaii legislature, a bill was passed making all brutal beatings a felony, whether or not a weapon is used. Conviction carries a maximum penalty of 5 years in prison and a $2,000 fine.

UNITED STATES DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION
WASHINGTON, D.C. 20535

OFFICIAL BUSINESS

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INTERESTING PATTERN

Although the pattern presented above possesses two delta formations and appears to be rather complex in its formation, a close examination discloses no looping ridges or recurves sufficient to fulfill the requirements necessary for classification as a loop or whorl type. Consequently, in the Identification Division of the FBI, this impression is classified as a tented arch.