

- *Restricted to the Use of Law Enforcement Officials*

# FBI

## *Law Enforcement*

# BULLETIN



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Federal Bureau of Investigation  
United States Department of Justice  
J. Edgar Hoover, Director

# FBI Law Enforcement Bulletin

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United States Department of Justice  
Federal Bureau of Investigation  
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August 1, 1950

TO ALL LAW ENFORCEMENT OFFICIALS:

The height of the vacation season is a fitting time to pay tribute to those in law enforcement who continue to devote time and effort to the prevention of crime through sponsorship of youth activities.

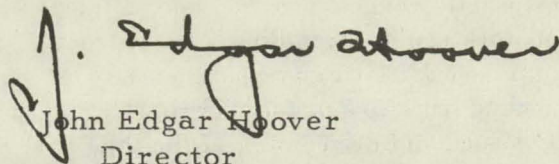
America was treated to an appalling spectacle during the war. Juveniles--thousands of boys and girls--enlisted in the swelling ranks of an already vast criminal army. National energy was concentrated on conquering the enemy abroad. Law enforcement, close to the problem, challenged the enemy at home. Innumerable law enforcement agencies launched youth programs designed to absorb excess energy and channel it into character-building activity.

The police officer knows that the inextinguishable urge of youngsters to be doing something must be harnessed and directed. And, while it is not primarily his job to promote youth-serving agencies, nevertheless, his record in this field is a credit to all law enforcement.

The child who, through summer camps, athletic leagues, rifle corps, or other groups and activities, meets the police officer as a friend, does not grow up to fear and hate the representatives of law and order. Youthful impressions strongly guide adult living.

Those communities which boast police-promoted youth activities are to be congratulated. Their law enforcement officers, voluntarily, are investing time and effort in projects which yield rich dividends in character, decency, and good citizenship.

Very truly yours,

  
John Edgar Hoover  
Director





## FEATURE ARTICLE

(Continued from July issue)

### **Truck Theft**

Truck thievery has been developed in recent years into a highly profitable activity. A great volume of valuable and easily salable goods is transported by motortruck. It is not difficult to learn when a specific cargo is to be carried. A casual tail by the thieves will reveal the habits of the driver. When all the necessary information is obtained, the theft itself is easy of accomplishment. The thieves follow the truck in another vehicle and when the driver leaves the truck to clear his papers preparatory to delivery, one of the thieves dressed in work clothes mounts the truck and drives off. Very often the driver leaves the ignition keys in the switch, as he expects to return shortly. If he does remove the keys, a jumper is used. A look-out is stationed to give the alarm if the driver returns prematurely. It is also the duty of the look-out to delay the return of the driver by asking for directions or some other suitable pretext. The thieves here also use their vehicle to block pursuit.

Generally, truck thieves prefer to have a "drop" not too far removed from the location of the theft. Each minute that the stolen truck is in their possession on the highway adds greatly to the hazard of detection. However, some thieves will drive some distance in the stolen truck before transferring its contents and then abandoning the vehicle. Some do not even use a "drop" but will drive to a deserted area or one where many trucks are loading or unloading cargo and make the transfer there. When the object of the larceny is not the cargo but the truck itself, the method employed is similar to that used by automobile thieves generally.

In some sections, busy merchants deposit goods on the sidewalk to be picked up by motor carriers. These are usually congested areas, and a thief dressed in work clothes, trundling a hand truck may pick up the material, carry it around the corner on the hand truck to a motortruck to which it is speedily loaded and driven off. If the thief is detected taking the goods, an accomplice who is

## **Investigation of Crimes— Larceny**

by DEPUTY INSPECTOR STEPHEN P. KENNEDY,  
*Waterfront Command, Police Department of  
the City of New York*

tailoring him will intervene and excoriate him for being so stupid as to take the wrong shipment.

### **Package Theft**

Package thieves are not big-time operators. One will accost a delivery boy and ask for a light. In this way, he manages to learn the identity of the consignee. His confederate hurries to the address and in the role of the consignee, meets the boy at the entrance, berates him for being tardy, takes the package, signs a receipt, and hurries the confused delivery boy off the premises. Others phone a business house in the guise of an old customer, place an order for immediate delivery on credit, and at the entrance of the bona fide customer, the thief repeats the same formula.

### **Sneak Thieves**

Professional sneak thieves often operate singly. By implication, the "sneak" thief is often pictured as a furtive character satisfied with trifles. This is not always so. Too often he is a suave, well-dressed character who preys on the affluent. He will appear at the door of a luxurious apartment and, with a knowledge of the occupants, make a request of the maid or butler which causes that domestic to leave the room. He then picks up some small article, possibly jewelry or a purse, and leaves before the servant's return. If the owner responds to the door, he uses some plausible pretext to divert her attention and achieve his purpose. Business offices are also visited by this type of thief. The articles taken are invariably small enough to conceal on the person. Others gain access to the premises in the guise of repairmen, flash false credentials, and roam about on their purported tasks in order to locate valuable property. When unobserved, he seizes the articles, places them in his tool kit and leaves.



## ***Employee Thefts***

Dishonest domestic employees, being in positions of trust in a household, can await an opportune moment to loot at will. True, there are some who do not secure employment with larceny as a motive but are tempted by the carelessness of their employers. A series of thefts may go undetected if committed when the stolen articles are not in daily use and their loss is not discovered for long periods. In the interval between the theft and its discovery, many strangers such as repairmen, other servants, etc., may have had access to the premises, and suspicion may fall on them rather than the trusted servant.

Failure to check references of domestic and business employees can fairly place the responsibility for such losses on the employer as many employment agencies do not conduct a thorough investigation of their referrals.

A well-spoken, pleasant appearing girl was sent to a home by an agency. The woman of the house was favorably impressed and hired the girl on the spot. After outlining the maid's duties, the mistress took a shower preparatory to going out. A short time later, a detective observed a girl enter a pawn shop. He followed and overheard her ask for a very moderate loan on some valuable jewelry. Ensuing investigation revealed that when her employer entered the bath, the maid quickly scooped up the jewelry and walked out. When the detective telephoned the woman, she had just finished her toilet and it took no little amount of convincing argument on the part of the officer to convince her that the sweet little maid had so promptly taken advantage of her new situation.

## ***Businessmen Considered Realistic***

Businessmen are by tradition considered very realistic; yet, even they indulge in some very un-businesslike practices. An alert, well-mannered applicant with the aid of forged references can too often ingratiate himself by a glib story so as to cause the employer to make a mere cursory investigation, or none at all. Recently, an ex-convict who had not been gainfully employed for years sweet-talked his way into a job. A few nights later, he and his confederates proceeded to denude the business house of virtually all its valuable stock. The only thing that interfered with the success of the operation was a vigilant police officer who was not as naive as the employer.

The failure of businessmen to supervise their employees properly, and to make spot checks not only on their efficiency but also on their honesty, often results in grave losses to the firm. Checkers have been known to sign receipts for greater amounts of merchandise than those actually received. Order clerks, not as infrequently as we would like, permit greater amounts to be delivered than called for by the order. These employees act in concert with truck drivers in systematically looting business companies. Frequently such losses are discovered too late to fix responsibility with any degree of certainty. Cashiers, hard pressed for funds, sometimes receive payment of accounts and convert the cash to their own use. This is usually followed by a juggling of accounts and requires the personal attention of the thief. One of the first acts of an investigator or bank examiner is to inspect the vacation lists of the organization. If it is noted that some zealous employee never takes a vacation, although entitled to do so, his accounts are given a thorough going-over.

It would seem that a business corporation purportedly employing modern business and accounting practices could not be victimized to the tune of a million dollars. But we learn from experience that the best systems are no better than the personnel who operate them. In other words, the human factor cannot be entirely eliminated by methodology—no matter how sound the latter.

During the war years a company resorted to irregular channels to procure certain scarce materials. One of the sources, from which the company purchased the scarce commodities, was headed by a man with a criminal record, a fact unknown to the buyers. While sellers usually investigate buyers, buyers rarely investigate sellers. The cashier had been with the company for over 20 years and was a most trusted employee. After several purchases had been made, the ex-convict seller approached the cashier with an offer of \$100 per week in appreciation of the prompt payment made by check in each case. The idea smacked of commercial bribery and was repellant to the cashier. But the thief was not so easily deterred. He suggested that the payment be made to the cashier's wife as a pure expression of gratitude. To this, the cashier reluctantly agreed, for he was aware of mounting bills which he had difficulty in meeting.

Several months went by and the payments were made regularly, before the seller again approached the cashier for a "favor." He asked



that a check be given him in payment of a delivery of materials to be made several days after the check was cashed. The cashier was indignant; this was contrary to the terms of the agreement! The ex-convict then explained that he was hard pressed for cash and suggested that the cashier's employer might take a dim view of the weekly payments to the cashier's wife. Fearful of losing his job, the cashier consented. This transaction was repeated several times, and on each occasion the time lag between payment and delivery lengthened. Finally, the deliveries stopped altogether and when this occurred the cashier realized that he had paid out nearly \$40,000 of the firm's money for which the company received no value. Frantically, the cashier sought out the thief and expostulated with him. His reply was a mere shrug of the shoulders and the explanation that inasmuch as he was in so deep, he might as well make the best of a bad situation and capitalize on a device which had worked so well in the past.

The cashier was taken to night clubs and lavishly entertained while the scheme was unfolded. The ex-convict and his associates would furnish bills calling for payment of certain materials never delivered. The names of the nonexistent concerns were similar to, but not exactly the same, as those with which the company had been doing business in the past. The cashier was to present the checks to the officers of the company authorized to sign them at a time when the press of business would not permit a detailed examination of these accounts. The thieves opened bank accounts in the names of the fictitious concerns and the checks were readily cashed. The scheme worked. All the trusted cashier had to do was present the fraudulent checks with legitimate ones to the signing officers near the close of day and they would be signed without question. Ultimately, when the total amount of the larceny grew to such proportions that detection of the fraud became inevitable, the cashier fled. He and his associates were later arrested and convicted but only a small portion of the loot was recovered.

### ***Hotel Thefts***

In cities with large hotels, the hotel thief is a serious problem. Hotel managers, of necessity, are fearful not only of offending their guests but also of suits for false arrest. The opportunities for larceny in a large hotel are manifold. The hotel is highly vulnerable to thieving employees and

larcenous guests. One of the latter need merely register at a hotel and make a facsimile of his room key before checking out. A short time later, before the locks have been changed, the thief returns and is assigned another room. By ringing his former room he can ascertain when its present occupant is absent, and at the opportune moment easily open the door with his duplicate key, pack the property to be stolen in his own luggage, and check out. Others register at a hotel, ascertain what guests keep valuables in their rooms and note their habits. When an opportunity presents itself, the thief may gain access to his victim's room by use of a false key, by forcing the door or transom, or in all too many cases by merely turning the knob of an unlocked door. The loot can be removed as described above. If surprised, the thieving guest usually allays suspicion by use of some suitable pretext—"mistake," "confusion," etc.—and bows out as gracefully as circumstances permit. Usually, his fast talk and convincing manner will give him an opportunity to get out of the hotel before his intended victim becomes aware of the true purpose of the intrusion. Another method is simplicity itself. The thief enters the hotel, goes to a floor, and tries doors until he finds one open. He enters and removes objects which may be carried or worn without arousing undue suspicion.

When a convivial visitor succeeds in inducing an attractive female to visit his hotel room, a result entirely different than he expected may obtain. Indeed, if his physical condition is poor, the knock-out drops administered by the "lady of the evening" in drink may prove fatal. In any case, his companion usually leaves the guest unconscious and minus his valuables as well as the pleasures he anticipated.

Of course, when the man-on-the-town accompanies his companion to a hotel or furnished room of her choosing, he may expect to have his valuables removed from his clothing by an accomplice of the "lady."

### ***Restaurant and Movie Thieves***

Overcoat thieves operate in theaters and restaurants. During an intermission, a female member of an audience may leave her seat with an expensive fur coat draped over it. Just as soon as she is out of sight a well-dressed presentable female thief approaches without an outercoat, drapes the stolen property over her shoulders and walks out



of the theater, while her male accomplice watches for the return of the true owner. If the female thief is observed as she passes through the crowded theater lobby, it is the job of the male lookout to awkwardly slow up pursuit so as to give his confederate an opportunity to escape.

Restaurants without checking facilities are also the scene of this type of operation. A large, expensive very popular downtown restaurant reported a series of such thefts. A plant was established for the purpose of keeping those who entered without outercoats under surveillance. However, the number of hardy persons who "hop" out for a "quick one" from the office or business establishment is remarkable. It was noted that the coats taken were all of a large size. Therefore, frequenters over 6 feet tall entering without outercoats were closely observed and before the officer assigned put on too much weight while performing his onerous duties, he made the apprehension of a tall, prosperous frequenter who always entered without a coat, but sometimes left with one. This man's financial position was secure and there was no economic necessity which compelled him to resort to thievery. He varied his routine sufficiently to avoid suspicion and often visited this particular restaurant and others with guests. Needless to say, he did not indulge in his penchant for coat-pinching when he was host. The officer assigned to this type of case must use great care as one can make a mistake in good faith without any larcenous intent in selecting an overcoat other than his own and walking off with it.

### ***University Scene of Operation***

A big university has a downtown branch with a large registration. An epidemic of larcenies agitated the dean and he consulted with a detective commander who had been a student at the school. Many students pass through the many entrances of the building, through a great number of winding corridors on their way to class during the day and evening sessions. The problem was solved rather ingeniously. The detective commander had the records of the school checked and discovered, as he believed, that a number of policemen and policewomen were attending classes on a part-time basis in the day and evening. He instructed them and members of the faculty and assigned to each certain areas to be covered during recess periods. The plan resulted in almost instantaneous success.

### ***Shoplifters***

Almost every city has a department store customer who apparently can't resist surreptitiously taking certain property without paying for it. In many cases this propensity is known both to her husband and the department store employees and an agreement evolves that in cases where the woman takes property in addition to her regular purchases, a bill is sent to her husband and is paid promptly by the latter. Now a larceny can't be spelled out of such a transaction but it does serve to introduce us to a class called kleptomaniacs. These persons apparently steal anything with which they come in contact, whether of value or not. The motivation is not profit but is found to be a deep-rooted, persistent neurotic impulse. Then, there is the shopper who engages in the occasional theft of an article which has economic value but whose purchase can't be included within a limited budget.

Professional shoplifters may act in groups or individually in the bigger department stores. Some have developed a high degree of manual dexterity in whisking an article from a counter into a large pocket or voluminous sleeve. When apprehended, their defense is that the article must have accidentally fallen into or been caught by the garment in passing. Dress and gown thieves generally operate in two's and three's. One voluble "customer" engages the attention of the sales person assigned to the section while her confederates secrete gowns under their own dresses. Others use the privacy of fitting rooms to change from their old clothes into stolen garments and then leave. Some shoplifters will have a confederate return the loot to the store from which it was stolen and secure a cash refund, claiming that the property was a duplicate gift or under some other plausible pretext.

Counter thieves of the highest type are those who steal valuable jewelry by substituting a cleverly made cheap facsimile. The thief asks to be shown valuable rings of a certain type. He examines them carefully and makes a mental picture of the one he intends to steal before leaving with the explanation that he will return later to make a final selection. When he does return, the thief has a cheap duplicate secreted upon his person. During negotiations which finally result in no sale, the thief maneuvers the ring like a gaffer in a shell game and departs with the genuine article. The authentic looking imitation is left in place of the original.

*(Continued in a subsequent issue)*





## FEATURE ARTICLE

### Introduction

In Newark, N. J., agents of the FBI were required to investigate the theft of \$51,000 worth of leather goods from an interstate shipment. The trailer truck from which the leather goods were stolen was recovered early in the investigation. Small fragments of glass containing two different paints were found on the top of the trailer.

It was assumed that the truck had been driven into a garage in order that the leather goods might be removed from the truck without detection. It was further assumed that the glass fragments on the truck might be fragments broken from the glass in the garage door.

Subsequent investigation uncovered several overhead garage doors with broken window panes. All were eliminated as possible sources of the glass fragments on the top of the victimized trailer by FBI laboratory comparison examinations of the glass and paint. Finally the door was found which had glass with two paints similar to the fragments found on the truck. It was this factor which led to the suspects in this case. The testimony of the laboratory technician materially assisted in the successful prosecution of the case in court.

In the investigation of crimes against the person, blood, hairs, and fibers are seldom overlooked as pertinent evidence. In many other crimes, especially against property, paint plays a role similar to that of the evidence just noted. Paint is a protective and decorative coating having wide usage. Look around and note the number of objects which are painted. Over 1,200 manufacturers in the United States alone are producing paint to meet the large variety of demands. Annual sales of paint total nearly a billion dollars. Today engineering specifications demand its use for practical reasons.

Because of the possibility that paint will be transferred from one object to another during the commission of a crime, it must not be over-

## FBI Laboratory Handles Paint Examinations

looked as evidence. Paint evidence, properly examined, often tells an important story. It may assist the investigator in associating an individual with the scene of the crime or it may eliminate innocent suspects. Paint is often smeared on tools during unlawful entry. It is chipped off surfaces during burglaries. It flakes off automobiles during hasty getaways following impacts. Paint has often proved to be a strong link in the chain of circumstantial evidence.

Paint may be defined as a liquid suspension of fine solid particles which when applied to a surface, dries and hardens by evaporation, oxidation or absorption to form a protective and decorative film. Paint is normally made up of:

1. *Solid particles which include pigment and extenders.*—The pigment (or combination of pigments) imparts the desired color to the paint and gives it resistance. The extenders, although they normally have poor hiding power, are used chiefly because they are inert from both a chemical and physical standpoint. The extenders because of their cheapness, are also used to increase the bulk of the paint and to reduce its cost. They are also used to adjust consistency and color of the paint.

2. *Vehicles.*—These are initially liquids and permit the spread of the pigment to a uniform depth. The vehicle hardens as a film to bind the pigments and surface together. Frequently, drying oils are added to the vehicle to accelerate the drying by a chemical process known as oxidation.

3. *Solvents or thinners.*—These put the above two ingredients in an effective usable condition suitable for application. After they have served their purposes they evaporate from the paint.

### Handling of Paint in the Laboratory

Paints are analyzed in the FBI laboratory according to color, texture, layer structure, pigmentation, extenders, vehicles, and spectrographic composition.



## Microscopic Examinations

Normally the first examination made of a paint specimen is a microscopic examination. A microscopic examination gives the examiner the general color or colors of the specimen. Often when comparing two specimens of paint, there is such an obvious color difference at this point that further examinations are unnecessary. The texture of a paint takes into consideration the general physical appearance, such as the degree of hardness, thickness, gloss, and graininess. Surface peculiarities such as wrinkling, cracking, chalking, blistering, etc., are readily apparent at this stage of the examination.

The police department of Salt Lake City, Utah, successfully investigated a fatal hit-and-run bicycle accident. Among the evidence submitted to the FBI laboratory were a portion of the wheel rim from the victim's bicycle and foreign paint chips found on a suspect's automobile. The portion of bicycle rim was painted with a cream enamel and bore two black lacquer stripes which had been applied in a manner so as to leave a series of microscopic ripples or waves along both edges. The paint from the suspect's automobile consisted of a single layer of cream enamel and it also bore a similar black lacquer stripe possessing identical microscopic ripples. Figure 1 shows the microscopic ripples present on this paint. Further comparison examinations showed these two paint samples to be

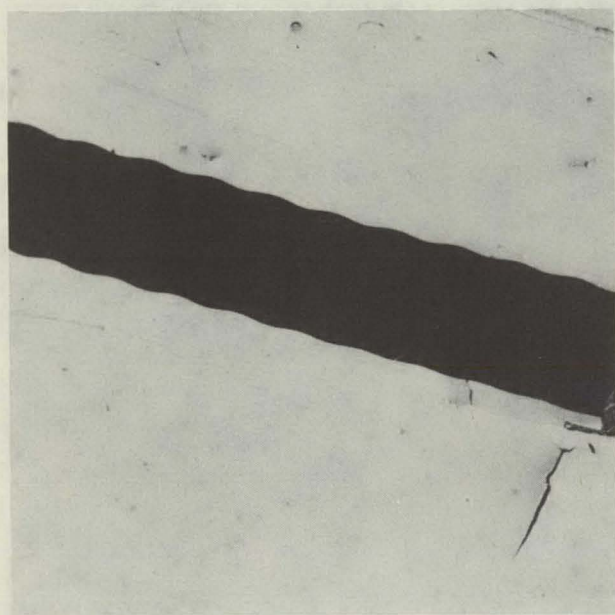


Figure 1.

similar in all respects. The Salt Lake City Police Department advised that the suspect had steadfastly maintained his innocence, but, when confronted with the results of the laboratory examinations, he confessed to being the driver of the hit-and-run automobile and pleaded guilty to manslaughter.

The majority of paint specimens examined in the Laboratory consist of more than just one layer. The microscope will reveal the number, colors, color sequence, and texture of each layer in a multi-layered paint chip. In a recent burglary case, 12 layers of paint were found adhering to a suspect's pry bar which matched 12 layers of paint from the door of a burglarized business establishment.

Figure 2 illustrates a typical evidence paint chip which has been turned up on edge and photographed with the aid of a microscope.

Most of the above characteristics of a paint specimen are not readily discernible to the investigator's naked eye and, therefore, cannot be fully evaluated without the use of the necessary tool, the microscope.

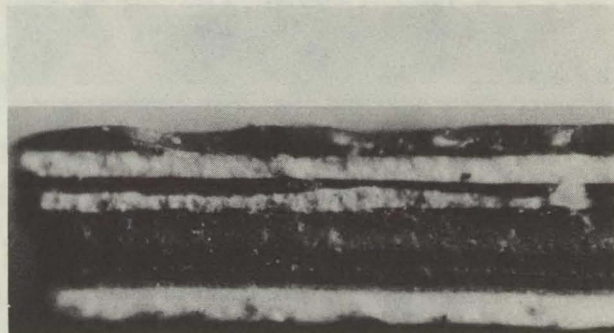


Figure 2.

## Microchemical Examinations

In a microchemical examination, a small chip of paint is subjected to established chemical spot tests or identification reactions under a microscope, with the aim of identifying and comparing the vehicle and pigments. Microchemical examinations such as these enable the examiner to determine the type of paint. For example, lacquers may readily be distinguished from synthetic enamels.

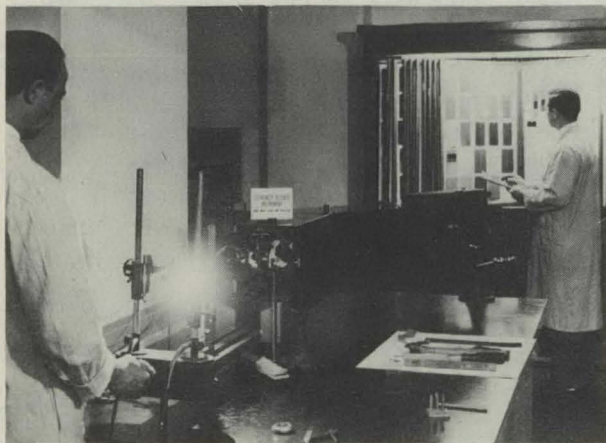
Frequently, it is necessary to separate the layers of a multilayered paint chip. In a hit-and-run case (described in detail later) from the Lima, Ohio, Police Department, it became necessary to separate the top five layers of paint from a seven-



layer paint chip in order to examine the sixth layer. By the use of appropriate solvents aided by mechanical "teasing," it is often possible to make layer separations under the microscope.

### ***Spectrographic Examinations***

The spectrograph is an optical instrument used for the purpose of determining the metallic composition of many materials. Paint is among these (see fig. 3). A complete description of the spec-



**Figure 3.**

trograph appears in the *FBI Law Enforcement Bulletin*, June 1949. Spectrographic analysis not only aids in the identification of the inorganic pigments and extenders in a paint, but also takes into account the inorganic trace impurities which have found their way into the paint during the manufacturing processes. Impurities in a paint frequently play an important part in the conclusion the examiner reaches when comparing or analyzing a paint to ascertain its source.

To examine a paint specimen spectrographically, the particles of paint (usually very minute) are put into a small crater or hole, which has been made in a pure graphite electrode. This procedure is normally carried out under a microscope as shown in figure 4. It can be seen here why many precautions, as pointed out later, must be taken by the investigator in transmitting paint chips to the laboratory for examination.

After the paint sample is loaded or imbedded in a carbon electrode, it is "burned" by an electric arc. The light given off by the burning sample is characteristic of the metallic elements in the paint. The spectrograph analyzes the light and



**Figure 4.**



**Figure 5.**

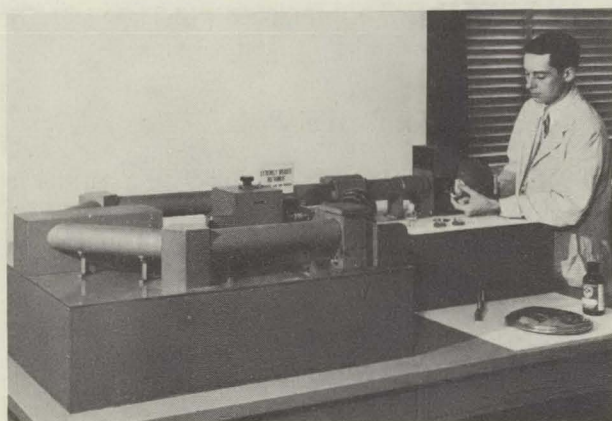


a series of lines will appear on a photographic plate. The series of lines produced represents a fingerprint-like spectrum of the elements present in the burned specimen. No two elements will give the same series of spectral lines.

Figure 5 depicts a densitometer. This is the instrument used to identify, measure and compare the spectral lines appearing on the photographic plate taken from the spectrograph.

### ***Spectrophotometric Examinations***

The spectrophotometer, figure 6, is another optical instrument which is used to a great advantage in



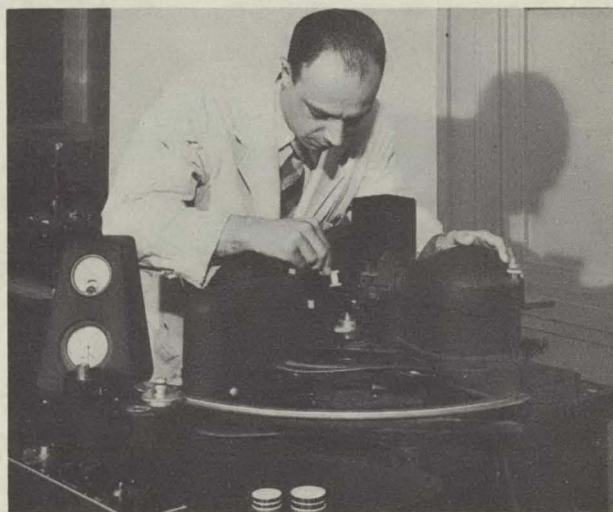
**Figure 6.**

the analysis and comparison of paints. The spectrophotometer may be thought of as an instrument used to study color and coloring agents. In paint analyses it can be used to compare the colors of two paints or it can be used to identify the coloring agent or agents. Many paints, especially red, use an organic dye for a coloring agent in addition to, or instead of, a pigment. In these cases, a spectrographic analysis will not be of much benefit in identifying a dye, since the majority of dyes used are of organic makeup. To analyze a dye in a paint, the dye is usually extracted from the paint by means of a liquid solvent. The colored solvent is then placed inside the instrument and all the colors of the spectrum are paraded through it. The instrument measures and records on a graph the percentage of each color which is absorbed by the dye solution. The resulting graph presents a curve characteristic of the dye and may be considered to be a signature of the dye. The laboratory has encountered many cases where two paints appear visually to be very similar in color

and yet by a spectrophotometric examination they have been found to contain entirely different coloring agents and, therefore, to be from different sources.

### ***X-Ray Diffraction***

One of the most interesting and informative types of X-ray examination in the FBI laboratory is the diffraction examination of unknown crystalline compounds. In this type of examination, the unknown crystalline material is exposed to a thin beam of X-rays. This beam of X-rays is bent or diffracted by the crystalline material in a characteristic manner. Salt crystals will bend or diffract the X-rays in a manner peculiar to salt, and baking soda and aspirin will also bend the X-ray beam in their own unique fashion. All crystalline compounds, because they differ from one another in size, shape, and general geometry, will give different X-ray diffraction patterns. These patterns serve to identify an unknown crystalline compound. Figure 7 shows the exam-



**Figure 7.**

iner placing an unknown crystalline powder in the X-ray diffraction spectrometer for analysis.

Using X-ray diffraction techniques, crystalline compounds in paint can be identified. For example, in a case from Rhode Island, where an individual was attempting to obtain money fraudulently from the marketing of a paint of his own formulation, it became necessary for the FBI laboratory to establish the coloring agents and extenders used in the paint mixture. Since both the coloring agent and extender were crystalline, these



compounds were easily identified by X-ray diffraction studies.

### ***Electron Microscope***

The electron microscope, figure 8, has also been used to analyze paint specimens. In Phoenix,



**Figure 8.**

Ariz., a market was burglarized and a sum in excess of \$800 was removed from the safe. Entry to this market was made through a sliding door by inserting a pry bar between the door and the door facing, forcing the lock, and sliding the door open.

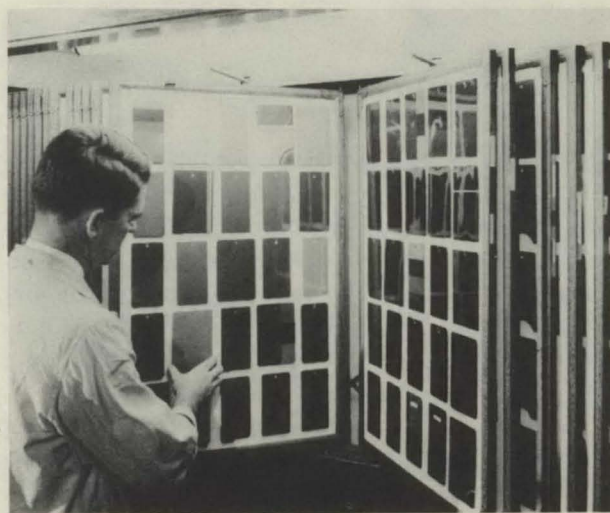
Examination of the scene showed marks on the outside of the door. These marks were apparently made by a blue paint and were obviously placed on the door to indicate the exact location of the inside lock on the door. Subsequent investigation revealed that some of the stock delivered to

the market storeroom was marked with blue paint by the truck driver from the wholesale house.

A small section of the wood from the outside of the market door and a small section of a cardboard carton from the market storeroom were submitted to the FBI laboratory. A microscopic examination of these two paint specimens revealed them to be similar in color and texture while microchemical tests revealed them to contain the same blue coloring agent. An unbelievably small amount of each sample was further examined on the electron microscope. This examination revealed that both blue paints contained the same extender. Thus, the electron microscope enabled the examiner to more adequately define the two paint marks, using specimens which previously might have been too limited for examination.

### ***National Automotive Paint File***

The National Automotive Paint File contains a collection of paint panels which represent the original finishes placed on automobiles at the time of manufacture. Figure 9 is a picture showing a



**Figure 9.**

few of the panels in this file. With the assistance of this file, efforts are made to associate a particular year and make of vehicle with a small fragment of paint left at the scene of a crime.

In Lima, Ohio, the police were called to investigate a hit-and-run accident. A small paint chip was found near the unconscious victim. This paint chip was sent to the FBI laboratory. When examined microscopically, it was found to contain seven different paint layers. The hit-and-run ve-



hicle thus was revealed to have been repainted several times. The top layer was observed to be a light blue-gray and this was reported as being the present color of the vehicle. Further microscopic examinations were made on the paint chip. The various layers were carefully peeled off the chip and studied individually. The sixth layer down was light-gray enamel and appeared to be an original finish. This light-gray enamel was searched through the National Automotive Paint File and found to be similar to the original finish used on 1941 Ford and Mercury automobiles at the time of manufacture.

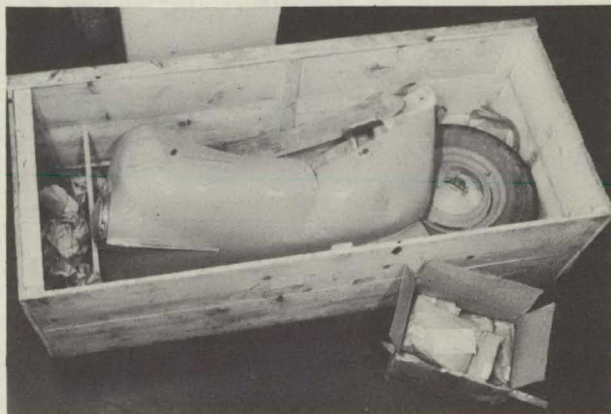
A damaged, light blue-gray, 1941 Mercury was located by the investigative efforts of the Lima, Ohio, Police Department. The owner was questioned about the accident and when confronted with the laboratory's story relating to the paint chip, confessed. However, because it was felt that a trial might result in this particular case, paint chips were obtained from the suspect's vehicle and submitted to the laboratory for a direct comparison with the paint chip found at the scene of the accident. Seven different paint layers were found on the chip removed from the suspect's vehicle. The layers were as follows: Light blue-gray enamel top layer, dark-gray primer, beige enamel, light-gray lacquer, dark-gray primer, light-gray enamel and dark-gray primer. These seven layers matched in all observable characteristics the seven-layered paint chip found at the scene of the accident. The suspect in this case pleaded guilty in court. Here is a case where a paint chip was the only evidence found at the scene of a crime. The laboratory examiners, using the National Automotive Paint File, were able to pinpoint the suspect automobile.

### ***Handling of Paint Evidence in the Field***

Paint specimens, to be of value, must be carefully obtained and properly packed for shipment to the laboratory. The paint which is transferred to the suspect's clothing, tools or automobile during the commission of a crime is always small, and, therefore, it is essential that a high percentage of this sample reach the laboratory. If the paint is smeared on a tool or a small auxiliary part, for example, a headlight rim or an outside mirror of an automobile, it can easily be removed. It is more desirable to send the item containing the foreign smear to the laboratory than to remove and transmit only the sample. This will enable

the examiner to microscopically study the foreign smear and efficiently remove the necessary sample from the object. If the item containing the foreign paint smear is submitted to the laboratory, the area possessing the foreign smear should be protected.

Evidence relating to a hit-and-run accident was shipped to the FBI laboratory from Sante Fe, N. Mex. This evidence is shown in figure 10.



**Figure 10.**

The evidence included an automobile bumper, wheel, tire, and right front fender, and, in addition, the clothing of the victim. The evidence was carefully packed. It is important to note that the investigating officers wrapped the clothing separately so that it would not be contaminated by any of the automobile parts. The clothing is shown in the cardboard container immediately in front of the large wooden crate. Examination of the paint on the fender revealed that the paint varied in layer structure from the front to the rear end. The paint on the front end of the fender was composed of two layers: a light gray enamel top layer and a brown primer bottom layer. The paint on the rear of the fender consisted of three layers: light gray enamel, light gray lacquer and a black primer bottom layer. A microscopic search of the victim's clothing revealed three-layered paint chips embedded in the victim's coat which were, by subsequent comparison examinations, found to be similar in color, layer structure, texture and composition, to the three-layered paint on the rear of the suspect's right front fender. In this case the investigating officers submitted to the FBI laboratory a bulky collection of evidence; however, it was carefully collected and well packed and a laboratory paint identification was made. This paint identification would not have



been effected if only paint from the front of the fender had been submitted for comparison purposes.

If the paint is smeared on an object, such as the side of a building or the edge of a heavy safe, and it is necessary to remove the foreign paint smear, every effort should be made to obtain as much of the smear as possible. Paint should be placed in a satisfactory container, properly labeled, initialed, and dated for identification purposes.

There are many different types of containers which can be used for the shipment of small paint samples to the laboratory. Some are satisfactory; others are not.

Figure 11 pictures six different containers

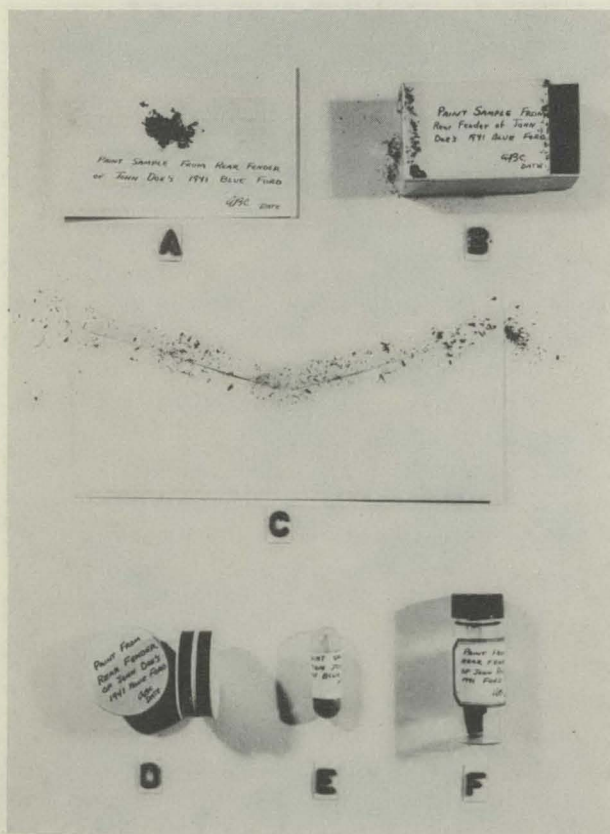


Figure 11.

which illustrate both satisfactory and unsatisfactory methods. The container labeled "A" is an index card. The paint has been scraped off the surface onto the card and then collected in the center and secured with a transparent adhesive tape. The card is then labeled, initialed, dated and shipped to the laboratory. Paint samples shipped in this manner usually arrive intact, but the small paint particles are found in the laboratory securely

stuck to the tape and it is often impossible to remove the small chips from the tape so that they can be properly analyzed. Therefore, this type of container is not satisfactory.

Container "B" is a capsule box and container "C" is an envelope. These two types of containers are not recommended for paint chips because it is most difficult to prevent the chips from leaking out. It is true that often the investigating officer may realize this and seal the leaky corners and edges with an adhesive tape. This leads to the same objection as above. The paint chips stick to the adhesive tape and often prevent any adequate analysis from being made.

The section of figure 11 labeled D, E, and F illustrates containers which have been found to be satisfactory for the shipment of small fragments of evidence such as paint particles. Figure 11 D represents a circular pillbox, the cover of which fits snugly over the base. The chips will not leak from this type of container during shipment. Figure 11 container E represents a gelatin capsule which can be obtained at almost any drug store. The two halves of the capsule fit tightly together and this container will not permit the paint chips to leak from it. Figure 11, section F, represents a glass vial with a screw-on composition cap. Since the cap of this container securely seals the glass vial, the possibility of leakage from this container is minimized.

The containers illustrated in figure 11 do not include all types of containers. However, it is to be noted that those containers which can be properly sealed in such a manner that the chips can be easily removed are satisfactory types of containers.

It might be added that paint specimens are often submitted in containers filled with cotton. This method of packing paint chips is not considered satisfactory because of the difficulties encountered in picking the minute paint chips out of the cotton.

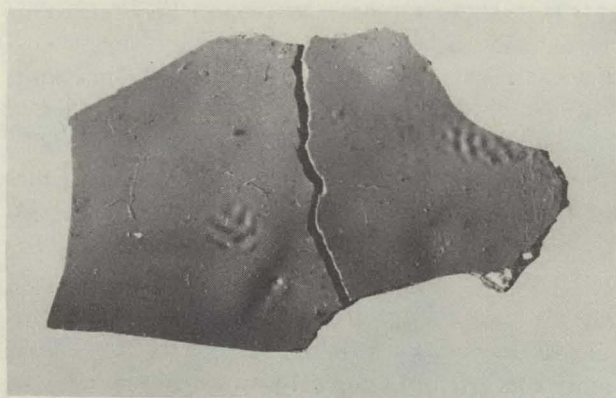
Wet paint samples necessarily must be handled by the field investigator in a different manner from dried samples. Small cans which can be easily sealed or glass vials such as container F in figure 11 have been found satisfactory for the shipment of wet paint samples to the laboratory.

Known samples of paint must often be obtained for comparison purposes. If, for example, safe paint is smeared on the painted surface of an automobile, paint samples representing the paint on the automobile should be transmitted to the laboratory together with the paint smears. Fur-



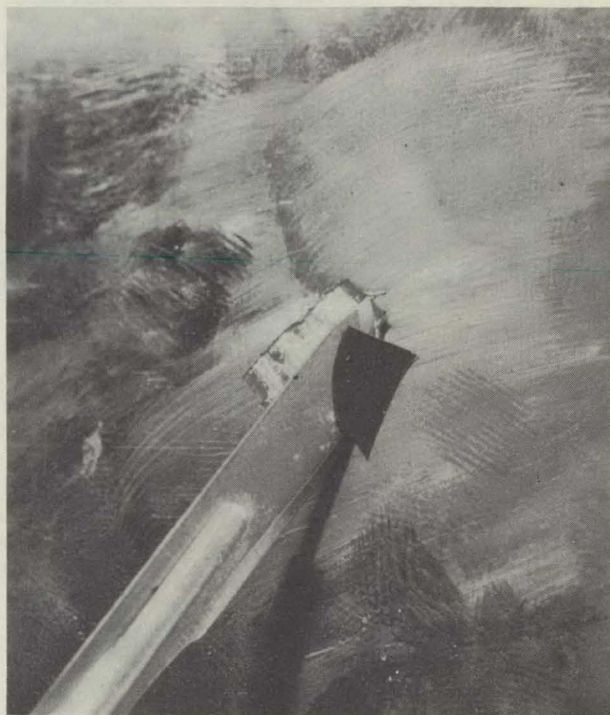
thermore, if the suspect suggests a source of the paint smears to substantiate his alibi, paint should be obtained from this source for elimination purposes. Usually these samples are not limited in size. Investigating officers in obtaining these samples should attempt to get adequate and representative specimens. Let us suppose a safe is stolen and forced open with a sledge hammer and pry bar. A sledge hammer and pry bar are found in a suspect's possession and are apparently smeared with paint which is similar in appearance to the safe paint. To supplement and substantiate the comparison made with the naked eye, it is desirable to send the tools and a sample of paint from the safe to the laboratory. The paint sample should be taken from the area on the safe where the toolmarks are most pronounced. If the paint on the surface of the safe varies, it is possible that the paint on the back side of the safe may be entirely different from that appearing on the front. If paint from an area of the safe about the size of a one-half dollar is taken for a standard sample, it will be adequate.

The importance of securing paint chips from the point of contact is illustrated by the following case from Maryland. This case concerned a hit-and-run accident in which paint chips were found at the scene of the accident which appeared to be the same color as the paint on the suspect's car. Paint was chipped off the suspect's car and submitted to the laboratory for comparison with the paint found at the scene of the accident. The paint found at the scene of the accident was composed of eight separate and distinct layers while the paint from the suspect's car consisted of only four layers. The top two layers were the only matching layers. The laboratory suggested that the investigating officers obtain paint from the damaged area of the suspect's automobile. These



*Figure 12.*

later chips, when obtained, were found to contain eight layers of paint similar to the eight layers present on the chips found at the scene of the accident but, as illustrated by figure 12, the paint chips actually fitted together showing them to have been originally part of the same painted surface.



*Figure 13.*

Another factor to be considered when obtaining paint samples is the method of removing the sample from the painted object. If possible the paint should be chipped off the painted surface as shown in figure 13, and not shaved off as shown in figure 14. Paint that is shaved off generally represents the top layer of paint. Paint that is chipped off represents all the layers of paint which were applied to the painted surface. Each layer of paint which is present on both the known and unknown specimens represents a point of comparison. The more points of comparison which are found the stronger the conclusion resulting from the paint examination.

### *Conclusion from Paint Examinations*

The examination and comparison of paint evidence cover a very wide field and the results of such comparisons and examinations usually constitute very good circumstantial evidence. There is no set guide to use in drawing a conclusion





**Figure 14.**

from a paint examination, since each case merits its own conclusion. For example, a single layer of black paint which usually lacks identifying characteristics, when analyzed and compared with another black paint, affords little basis for a strong conclusion even though they are the same in composition. The conclusion in this case would be that both specimens could be from the same source. On the other hand, paint specimens often consist of several different layers. If, for example, the paint found on a victim's clothes consisted of eight layers and the paint from a suspect automobile consisted of eight similar layers arranged in the same sequence, the conclusion would be that the two paints came from the same source or a source painted in a similar manner with similar paints. Of course, the possibility of another source painted in this manner is extremely remote. Thus it is an accumulation of facts obtained by the analysis which governs the conclusion.

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### **Addresses Student Groups**

Rupert G. Zeigler, Chief of Police of Gainesville, Fla., on invitation of school authorities has given

several lectures to classes in Criminology and Sociology at the University of Florida. His subject, Functions of the Police Department and Citizens' Responsibility, covered police work generally from its inception to its present status.

Stating that law enforcement is a profession, and that department personnel must be trained if the profession is to be accepted by the public, Chief Zeigler emphasized "training" as the prime requisite in any program.

The chief pointed out some of the handicaps which law enforcement faces: the often adverse attitude of the public; the almost traditional political handicaps (the violator looking for someone to "fix" the charge); and the fact that poor pay, long hours and the dangers of the profession make it difficult to always attract the men best suited to the work.

Chief Zeigler covered the other side of the picture as well. He spoke of the advantages of law enforcement work; the retirement plans being put in effect by many departments; the extra pay given for extra duty; and the increased prestige which is accruing to the work with the gradual change in the public's attitude toward the policeman. He added, however, that many citizens expect superhuman performances from their officers, whereas others "don't want to see a policeman until they need him and then they want him *right away*."

### **FBI Academy Graduate**

Chief Zeigler, who is a graduate of the FBI National Academy, told groups composed of approximately 140 students, of the benefits derived from the many training schools being held throughout the country. In concluding, he said:

"Greater numbers of citizens of our Nation are recognizing their responsibility in cooperating with law-enforcement officers of all branches of our Government—local, State, and Federal. This recognition is based on the realization that we officers are constantly trying to improve our abilities to serve the public; that our service is based on the bedrock of the constitutional rights of the citizen who is a defendant as well as the rights of the one who is the complainant; and that although we are willing and anxious to serve the law-enforcement profession better, we are dependent on the support of the citizens, not only with respect to observing their laws, but in furnishing more concern and knowledge of our needs to serve them better."



# CRIME PREVENTION

The city of Cleveland, Ohio, is situated on Lake Erie where, on September 10, 1813, Commodore Perry said, "We have met the enemy and they are ours." The city, much more recently, came face to face with a new enemy—juvenile delinquency.

Approximately a million persons make their homes and rear their children in the cosmopolitan industrial area, which, like every large city, has its problems.

## *Survey*

Approximately 14 years ago a study was conducted in connection with the commission of crimes by juveniles. As a result, a juvenile bureau was set up in the police department. Capt. Arthur Roth was assigned to direct the new bureau which embarked on something in the way of an experiment.



*Capt. Arthur Roth.*

## ***How Cleveland Cleaned Up Its Juvenile Gangs***

An area which had gained a reputation as having the highest delinquency rate in the Nation was selected for the experiment. The area was infested with juvenile and adult gangs. It boasted no recreational facilities.

The lack of recreation activities provided the springboard for the Juvenile Bureau's attack on delinquency. Captain Roth found his assignment neither easy nor safe. He made his plans and entered the area ostensibly as a convict just released from the penitentiary. This ruse gave him an opportunity to learn much about the gangs, their leaders, and their modus operandi. By the end of 60 days a huge quantity of information had been collected on 28 juvenile and mixed gangs (adults and juveniles) including gang leaders.

## *Opening Wedge*

The leaders were called together and a plan was placed before them. It incorporated the idea of starting a club among the leaders, and, in addition, called for the organization of Boy Scout and Girl Scout groups in the area.

More policemen were assigned to the Juvenile Bureau. These men worked with the Scout Troops. Girls who were high-school graduates took over the Girl Scout Troops.

Work was begun in earnest. Recreational facilities were made available. Soft ball leagues were organized. A school featuring mechanical instructions was opened and more than 300 young men completed the courses.

Captain Roth's office began to resemble an employment agency as the young graduates sought his assistance. With the help of cooperating industrial leaders, every graduate and hundreds of nongraduates secured work. Each such placement carried the obligation to make good. A part of the pay of each boy had to be placed in the bank.

A shares company was started for some of the younger boys who learned how large companies are operated. The boys made various articles



which the company sold and on which it paid dividends.

A day camp was opened and operated throughout the summer months. In addition Captain Roth undertook a major project, the building of a permanent camp where children could spend several weeks at a time in the open air. A rough-looking, dilapidated farm site was located 20 miles from the public square. Civic-minded citizens helped put the place in shape. The buildings were razed. The tents which at first were



*Camp Cheerful, Strongsville, Ohio.*

used for housing soon were replaced by substantial buildings. A swimming pool was next. Discarded prison bars were used to set the base for the pool. Wells were drilled. Later, city water was installed. Police officers who had passed the life-saving tests served as instructors. Planning and programming improved with time and experience.

The Cleveland Rotary Club recently built several cottages at the camp. More buildings are planned for the future.

The aim of the bureau is to prevent juveniles from getting police records. In order to accomplish this aim a Youth Protective Council has been organized. This committee is comprised of railroad and industrial police officials, school authorities, clergymen, civic-spirited citizens and city police officers.

### ***The Individual Case***

When a juvenile comes in contact with an officer in connection with a delinquent act, a juvenile complaint blank is made out in duplicate, stating

the name, address, age, school attended, parents' or guardian's name, date, time, location and the infraction of the law in question. The officer signs his name and address. This report is forwarded to the Juvenile Bureau which in turn calls the child and parents to the office for a consultation. In the course of this interview the Juvenile Bureau officers have an opportunity to learn something of the type of persons the parents are; the kind of home from which the child comes; the child's behavior pattern; whether or not the juvenile attends church, etc.

A decision is reached after the meeting as to whether the child has had sufficient warning, or if a follow-up officer should be assigned.

If the child and family do not attend church, an attempt is made to persuade them to select a church of their liking. Contact is made with the pastor to see that attendance is carried out.

If an officer is assigned the case, he meets with the child and the parents. He advises, instructs, and pays regular visits to the delinquent's home in behalf of the child.



*A police officer gives swimming instruction at Camp Cheerful.*

### ***High Risk Areas***

A spot map, broken down into census tracts, enables Juvenile Bureau officials to note at a glance the juvenile high risk areas of the city. This map shows plainly the areas where rates of crime occurrence are highest. It is studied each day. If an area reaches the danger point, a survey is made.

Boundaries are laid out. The Juvenile Bureau begins gathering the following information: the population; the foreign born by country of birth;



economic status of the area; number of children in area of from 5 to 15 years of age; street and block numbers; high risk factors such as pool-rooms, bowling alleys, theaters, dance halls, shops and factories, beer parlors; gangs; etc. The constructive factors—playgrounds, churches, clubs, halls, schools, vacant fields, Boy Scout and Girl Scout Troops, etc.—are checked also. While the survey is in progress, a certain amount of shadow work is going on as to types of gangs, the gang leaders, where the gangs meet, etc., and the indicated action is taken.

### **Positive Action**

Captain Roth organized junior police clubs in areas of the city in which no agency was active. These are supervised by officers of the Juvenile Bureau. Each boy is furnished a sweater, cap, wallet, badge and identification card. Meetings are held twice a week. The boys are organized into competitive groups for baseball, basketball, and football leagues. The purpose of these clubs is to make the neighborhood a better place in which to live. When an area needs cleaning up, the boys gather with rakes, shovels, and brooms and go to work. But work is not everything. The boys are given parties. They are taken to professional baseball and football games, etc.

Last year the Juvenile Bureau enabled 300,000 children to attend the baseball games free. During the football season 50,000 children were given admittance to football games. Not a child was lost or injured.

The Juvenile Bureau is interested in the city's four Boystowns which are supervised and directed by professional instructors.

Juvenile Bureau officers check all bowling alleys throughout the city for the protection of minors employed in the alleys. School achievement and attendance records are examined to eliminate boys under 16 and those whose school work or attendance records indicate they should not be permitted to set pins.

All juvenile fire complaints are referred to the Bureau for investigation and possible action.

The Juvenile Bureau is extremely vigilant in following up on all complaints involving liquor sales to minors.

Motion-picture theaters and "funny" houses throughout the city are given constant attention. A close watch is kept on such persons as may be present for the purpose of committing immoral

acts involving juveniles. Officers review pictures, literature, and other materials which tend to corrupt, with a view to making them unavailable to youth. Truants are returned to their respective schools and both parents and children are called to the Juvenile Bureau for consultation.

The Juvenile Bureau coordinated its efforts with schools and other agencies in having Hallowe'en parties which were extremely effective in reducing vandalism.

A project to repair broken Christmas toys was very successful. The Juvenile Bureau sponsors a gigantic Christmas show at the public auditorium. Approximately 12,000 children attend this show each year.

The Juvenile Bureau consists of 1 captain, 1 lieutenant, 1 sergeant and 21 patrolmen. The efforts of these men have resulted in the virtual elimination of juvenile gangs. The Juvenile Bureau itself believes that Cleveland's delinquency rate is probably the lowest of any large city in the Nation. The members feel that, like Commodore Perry, they have "met the enemy and they are ours."

## **Latent Fingerprints Identified**

On April 22, 1949, the Vasco da Gama Club, Bridgeport, Conn., was burglarized. Detective Sgt. Joseph Walsh of the detective bureau and Detective Joseph Toth of the identification bureau investigated the case.

The officers found a latent fingerprint on a piece of metal which had been broken off the cash register in the course of the burglary. The print was in such a place that it would have been left there only by an intruder.

Detective Toth photographed and lifted the print which was retained for future reference.

On June 7, 1949, Detective Walsh arrested an individual on a charge of breaking and entering the Ocean Sea Food House at Bridgeport.

Detective Earl Dinan fingerprinted this person whose finger impressions, at the request of Sergeant Walsh, were checked against the latent prints developed at scenes of recent burglaries in the city. As a result, Detectives Toth and Dinan made an identification of the left thumb of the suspect with the latent print found on the piece of cash register at the burglary of the Vasco da Gama Club.



# MISCELLANEOUS

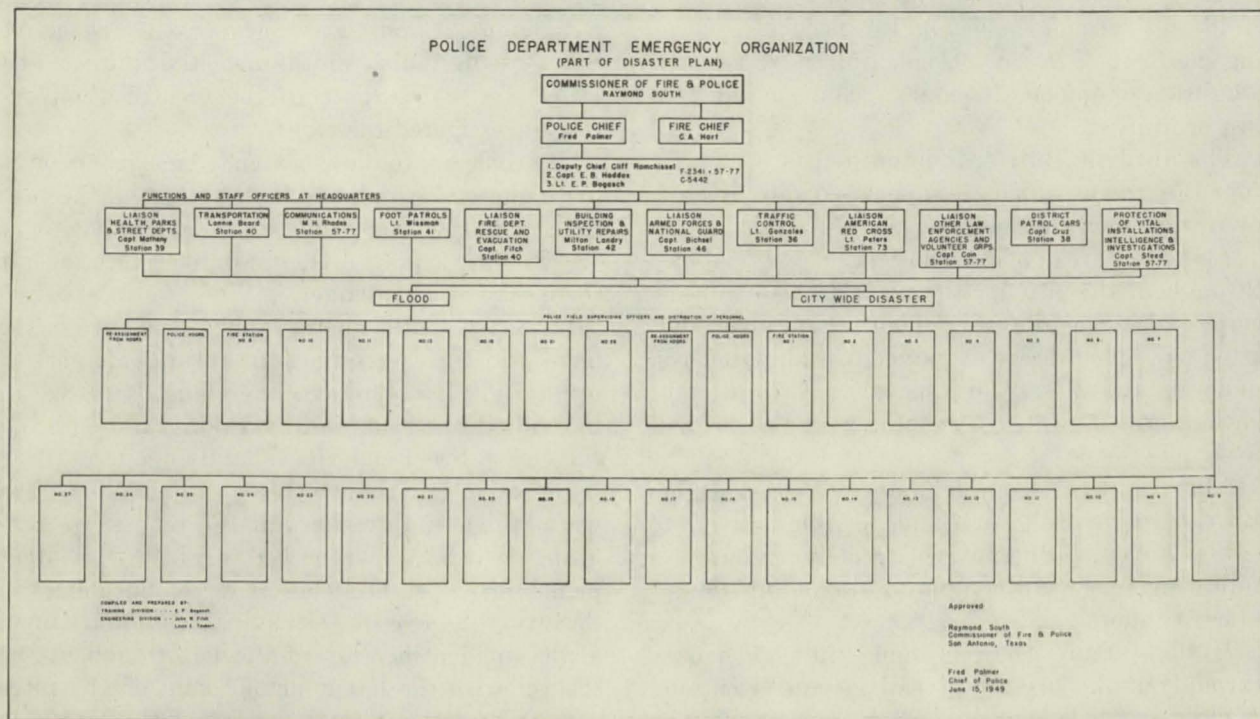
## San Antonio Has General Disaster Plan

Under the supervision and direction of Raymond South, Police and Fire Commissioner, and Chief of Police Fred Palmer, Lt. Edwin P. Bogasch recently completed an emergency and disaster plan for the city of San Antonio, Tex. The plan is designed to cope with any type of major emergency such as floods, earthquakes, tornadoes, explosions, large fires, and falling aircraft, and it will be comparatively easy for any phase of the plan to be invoked to cope with the various types of emergencies which may arise in a city the size of San Antonio.

The procedure is outlined in two forms. Two large organization charts, measuring 5 feet long and 2 feet wide, have been prepared. The first of these charts outlines the duties and assignment of responsibility to each of the public agencies operating in the area. The second similar chart includes a similar outline with reference to the duties of

the police and fire departments. All of the data contained in the organization charts is supplemented by a 57-page booklet containing the identities, addresses, and telephone numbers of the key personnel involved for each organization and each operation, together with the various types of equipment which could be utilized.

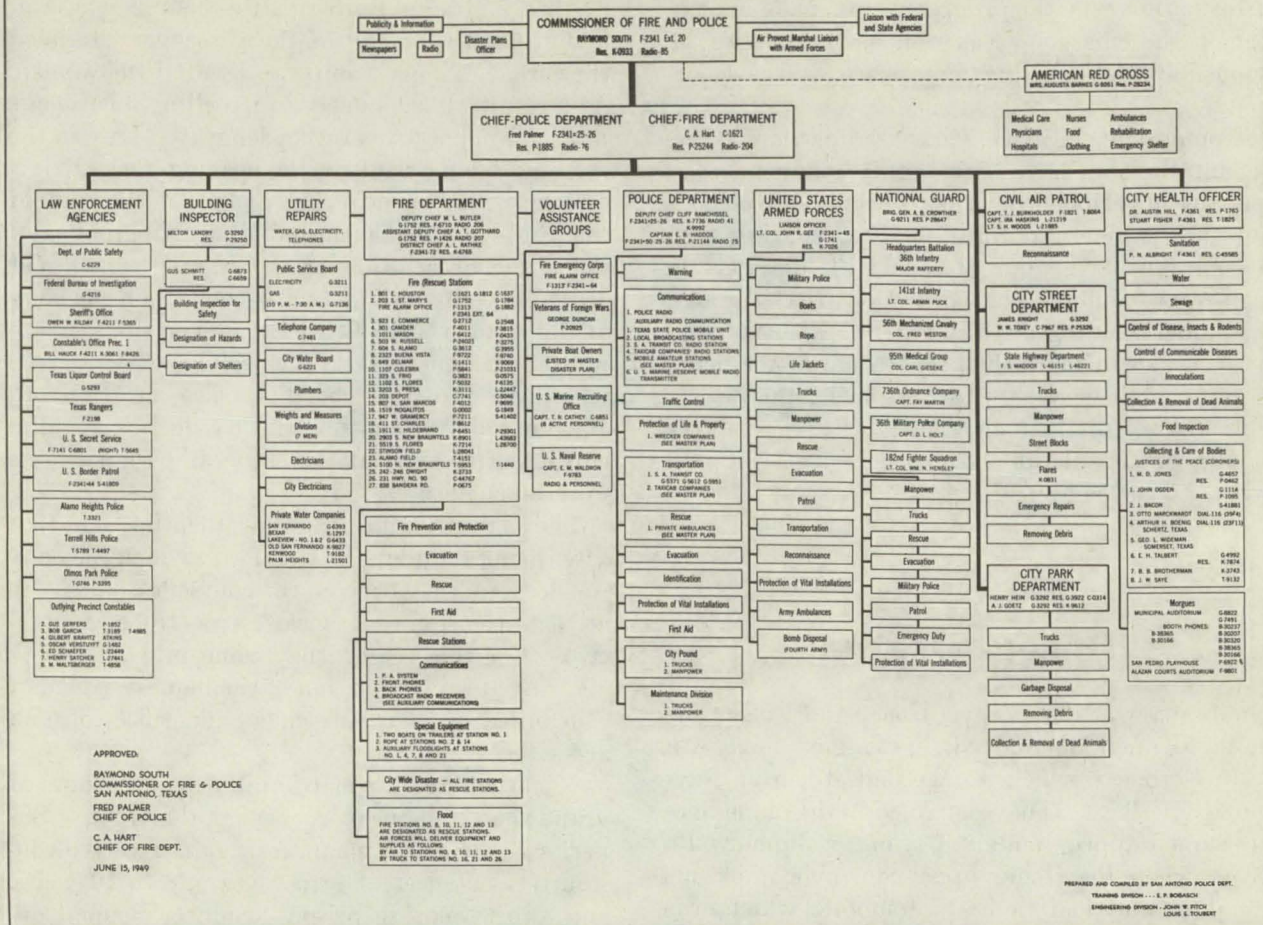
The master organization chart provides for the plan to operate under the over-all direction of the commissioner of fire and police. In the chain of command, his orders would be executed under the supervision of the chief of police and the chief of the fire department, with appropriate liaison being established with members of the Armed Forces, State and Federal law enforcement agencies, local newspapers and radio stations. The assignment of responsibility is then made to various agencies for different activities such as public buildings, public utilities, marine equipment, fire



Emergency organization plan.



## GENERAL DISASTER PLAN FOR SAN ANTONIO, TEXAS



### General disaster plan.

prevention, law enforcement, sanitation, medical supplies and rescue equipment. It is contemplated that each type of law enforcement agency in the area will be utilized, including all officers in the outlying suburban areas.

Responsibilities are scheduled for the various municipal divisions such as the office of building inspector, lights, water, telephone, street department, health department, park department, and others. In addition, through contacts and arrangements worked out with certain volunteer assistance groups, the U. S. Armed Forces, National Guard, Civil Air Patrol, and the Red Cross, it is possible to schedule all of the equipment and services which are available through each of these organizations. For ready reference the names, addresses, telephone numbers and radio call numbers of all the key personnel of each agency are listed on the chart. In all instances alternate personnel are shown with corresponding data so that

they also may be quickly contacted in an emergency.

Under the second chart to be utilized by the police department, all of the staff officers of the department and their duties are listed. These duties include assignment for liaison with the health, street and fire departments, Armed Forces, Red Cross, building inspector, public utilities, and outside law enforcement agencies. In other instances executive officers of the department are given the responsibility of supervising communications, transportation, foot patrols, traffic control, automotive patrol, and the protection of vital installations. According to Lieutenant Bogasch, an adequate supply of these charts is available for each executive officer and space is provided on the form for listing the identity of the personnel assigned for each type of activity. The purpose of this arrangement is to make it possible for those at the control center at police



headquarters to have instantly available complete information as to the progress being made in combating the emergency, as well as the parties responsible for handling any phase of the emergency.

Commissioner South, Chief Palmer, and Lieutenant Bogasch have been highly commended by various governmental organizations and officials for their vision and foresight in preparing such a comprehensive plan to cope with disasters in that area. They have pointed out that through the understanding already reached with the persons responsible and the preparation of the many minute details necessary to make such a plan workable, there is little doubt that it will result in the saving of considerable life and property if and when it may be needed.

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## Desert Drama

On January 5, 1950, Lloyd Joiner and Polly Cordellia Bennett abandoned, in Kingman, Ariz., a 1949 Ford car which Joiner had stolen at Raymondville, Tex. They remained in the immediate area until approximately 4 a. m. on January 10, 1950, when they held up a constable, took his weapons and fled in his automobile which was equipped with two-way police radio.

In addition to the Federal charge of interstate transportation of the stolen automobile, local charges in connection with the robbery of the constable and theft of his automobile were lodged against the pair. All law enforcement agencies in northern Arizona joined with the FBI and the Kingman sheriff's office in an intensive search for the two subjects.

On the evening preceding the early morning holdup, a passenger train halted at Ash Fork, Ariz., east of Kingman. An elderly woman passenger got off the train in the course of the stop and shortly thereafter disappeared. Apparently she had become bewildered and wandered away from Ash Fork.

Officers of the Santa Fe Railroad organized search parties in the area in their effort to find the missing passenger. On the afternoon of January 10 one of the groups came upon a man and a woman who had found the body of the passenger. The aged woman had died, apparently of exposure.

At the request of R. F. Barton, special officer of the Santa Fe Railroad, the couple who had first located the body of the passenger, attended the coroner's inquest into the death of the woman. As a result of some delay in panelling a coroner's jury, the inquest was rather lengthy. Late in the evening during a lull in the hearing, Officer Barton picked up an afternoon paper. He read of the robbery of the constable in Kingman and noted the description of the wanted pair. The man and woman who had first come upon the body of the dead woman fitted the descriptions of the wanted persons exactly. Special Officer Barton telephoned to the sheriff's office at Prescott. Within a short time Sheriff Orville Bozarth and two deputies were at the scene and the suspects were taken into custody.

The subjects, admitting their identity, said that after being found in the vicinity in which the body was located, they decided the course least likely to attract attention to themselves was to be cooperative. For this reason they came into Ash Fork and stayed for completion of the inquest which, of course, led to their subsequent identification and arrest.

Joiner entered a plea of guilty to two counts of grand theft and one of robbery in the Mohave Superior Court at Kingman, Ariz., and received consecutive sentences of 3 to 6 years, 8 to 16 years, and 3 to 6 years in prison. Subject Bennett entered pleas of guilty to grand theft and robbery, and received concurrent sentences of 3 to 6 years and 8 to 16 years. The Federal complaint was dismissed in view of the substantial sentences received in State court.

## NOTICE

There are on the market several plastic sprays, some of which are in self-dispensing containers. Some advertisements have indicated the desirability of using these plastic sprays to preserve latent fingerprints and protect physical evidence. A number of inquiries have been made of the Bureau in view of the fact that the use of such materials is contrary to established investigative procedures and instructions concerning the handling of physical evidence. Despite the advertisements of the distributors of some of these commercial products, it is not desirable to contaminate physical evidence or change it prior to laboratory examination.



# IDENTIFICATION

On the night of January 16, 1950, a party of prominent businessmen were fishing off a cliff near the old Hawaiian village of Kahakuloa, on the island of Maui, second largest island of the Hawaiian group. A huge wave swept in. Three of the men were washed off the cliff and out to sea. A fourth who escaped the wave reported the tragedy to the police department.

The police department, headed by Chief Jean R. Lane and his assistant, Andrew S. Freitas, has jurisdiction over three of the eight islands of the Hawaiian group. These include Maui with an area of 728 square miles, Molokai with an area of 260 square miles, and Lanai with an area of 141 square miles. The Maui Police Department consists of 92 men. (Sixty-five of the officers have two-way radio equipment on their privately owned automobiles.)

Advised of the tragic incident at Kahakuloa, police hurried to the scene. Every effort was made to locate the missing men, but the precarious cliffs, made doubly dangerous by the darkness and the huge swells constantly sweeping against them, rendered progress futile. Before the night was over all hope of rescuing the victims from the sea was abandoned. The difficult task of recovering the bodies remained to be accomplished.

On the morning of January 17, 1950, a group of police officers, headed by Assistant Chief of Police Andrew Freitas, sighted a body in the waters of a cove near the scene of the accident. An attempt was made to enter the cove and recover the drowned victim. The treacherous waves, rushing continuously into the cove, rendered the task impossible. Assistant Chief Freitas ruled against the idea of sending a powerful swimmer into the angry waters as he felt that the risk was too great.

It was arranged to have a fishing boat stand by just outside of the cove entrance in the hope that the body would be washed out to the open sea where it could be recovered.

On the following morning, crew members of a

## ***Shark and Sea Victims Identified by Fingerprints***

fishing boat did recover a body not far distant from the scene of the accident. The body was believed to be identical with the one sighted the prior day in the cove. Long immersion in the water, the constant pounding of the waves, and feeding sharks had taken their toll. The badly mutilated body was taken to the morgue.

The government physician was called to examine the victim and make a report. Relatives of the missing men viewed the body and were unable to identify it.

Lt. Francis B. DeMello, identification officer for the Maui Police Department, was called. He noticed that the left arm of the body was completely missing, but that the right arm was intact. He also observed that, although the entire right hand showed effects of long immersion, the finger tips were in fairly good condition.

Lieutenant DeMello washed the fingers with alcohol and injected tissue builder, a fluid used by morticians, into each finger with a hypodermic needle. Slowly the fingers began to round out into normal shape although they were swollen in size. Lieutenant DeMello was successful in securing a set of fingerprints. An identification was effected. None of the three missing men had



***Tiger shark from which human remains were recovered.***



ever been arrested. Consequently no fingerprints were on file for them in the criminal files of the Maui Police Department. Fortunately, however, as a result of the Governor's M-Day bill requiring that all persons six years and above living in the Territory during World War II have their fingerprints taken, the fingerprints of the missing were on file. During the war, prints of all persons in the Territory were taken on the regular 8 by 8 fingerprint cards and marked "Personal Identification Only." Copies of all prints were sent to the Federal Bureau of Investigation, Washington, D. C., and to the Office of Civilian Defense in Honolulu, on the island of Oahu, the seat of Government for the Territory. The latter have since been turned over to the Bureau of Crime Statistics.

Search for the two other missing men was continued. On January 19, 1950, the crew of the fishing boat, *Olympic*, caught a 12-foot tiger shark which weighed approximately 700 pounds. The huge creature had frequented the scene of the accident for approximately 2 days. When the shark was cut open, pieces of human body, including a head, two arms, parts of the spine and bits of inner organs, were recovered. The shark's stomach also contained a burlap bag, a 30-pound turtle and numerous other specimens of marine life.

Lieutenant DeMello found that the hands re-

covered from the shark's stomach were hard and shriveled. He ordered that the remains be taken to the morgue where an attempt to get fingerprints would be made.

At the morgue, members of the families of the two men still missing viewed the remains but were unable to make an identification.

Lieutenant DeMello washed the hands with alcohol which had been treated with formaldehyde. Tissue builder was injected a little at a time as the fingers were very hard and the flesh at first would not give. The officer continued to massage and work the fingers and inject tissue builder. At the end of 21½ hours of work, Lieutenant DeMello achieved success in securing a set of fingerprints.

Comparisons of the fingerprints of the two victims with the file reflected that the first body recovered was that of Harold M. Fujimoto. The remains recovered from the shark's stomach were those of Gilbert S. Hotta. No part of the remains of the third fisherman, Dr. Hideo Tamura was ever found.

This is another of the many cases in which fingerprints have been the only means of identification. Without them the families would have been unable to claim the remains. Definite identification simplifies problems of settling insurance and estate claims in such cases.

## ***A Type of Abnormal Ridge Formation***

Considerable publicity has recently been given the case of a Japanese, Tatsuo Takeshita, whose fingerprints were said to be "unidentifiable" since they lacked the normal ridge formations. It was further stated that both Takeshita and his mother lacked ridges on both hands and feet. Several cases involving similar malformation of the ridges have been observed in the FBI files, and some observations concerning them are given here as a matter of general interest. Obviously, the determination of the causes or origins of this condition would require an incalculable amount of research, far beyond the scope of this article.

The condition in question involves an actual irregular shape of the ridges in which the fingerprints appear as a maze of ridge junctions, short ridges, dots, and islands, without a discernible flow or pattern. This condition is to be distin-

guished from other types of ridge effacement or disfigurement where the patterns assume the normal shapes but are obliterated by innumerable creases and cracks in the skin, or by continual sloughing of the skin so that the ridges do not attain the average elevation. All 10 fingers are not necessarily affected, though they sometimes are; nor is each impression necessarily totally affected.

Persons taking the fingerprints of those having the abnormal ridge formation often describe the condition as "burn scars," but this is patently erroneous. No case of this type has been observed in which prints of the same individual taken at different times show any changes in the ridge configuration. Cases are on file, moreover, of apparent family groups having the same condition from birth, indicating a possible hereditary basis.



### ***Classification and Identification***

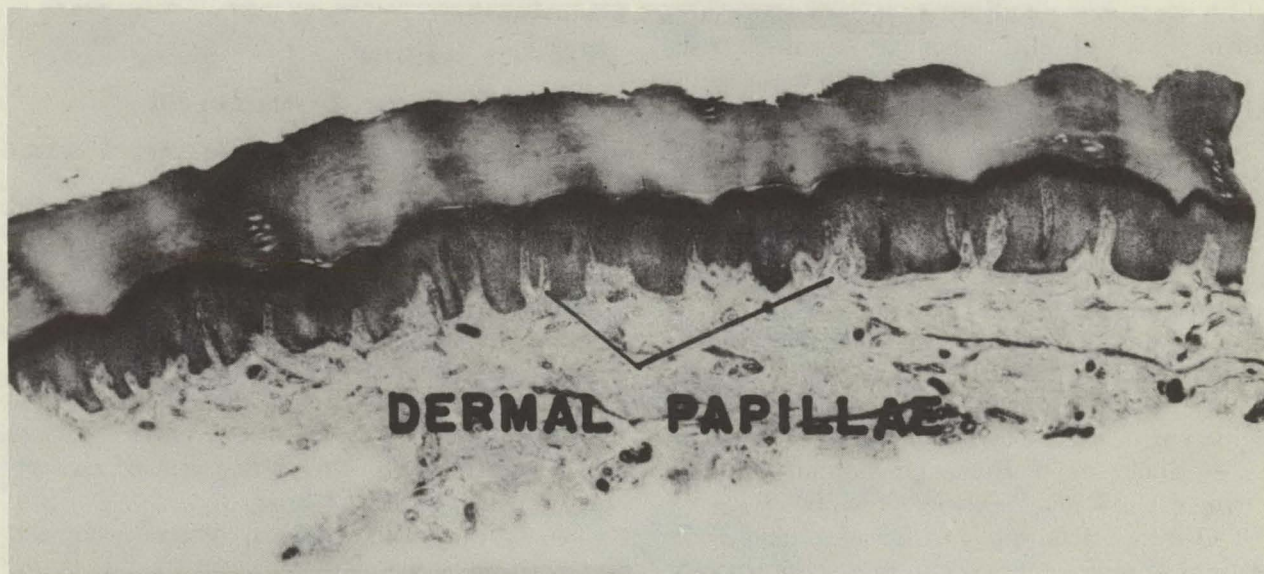
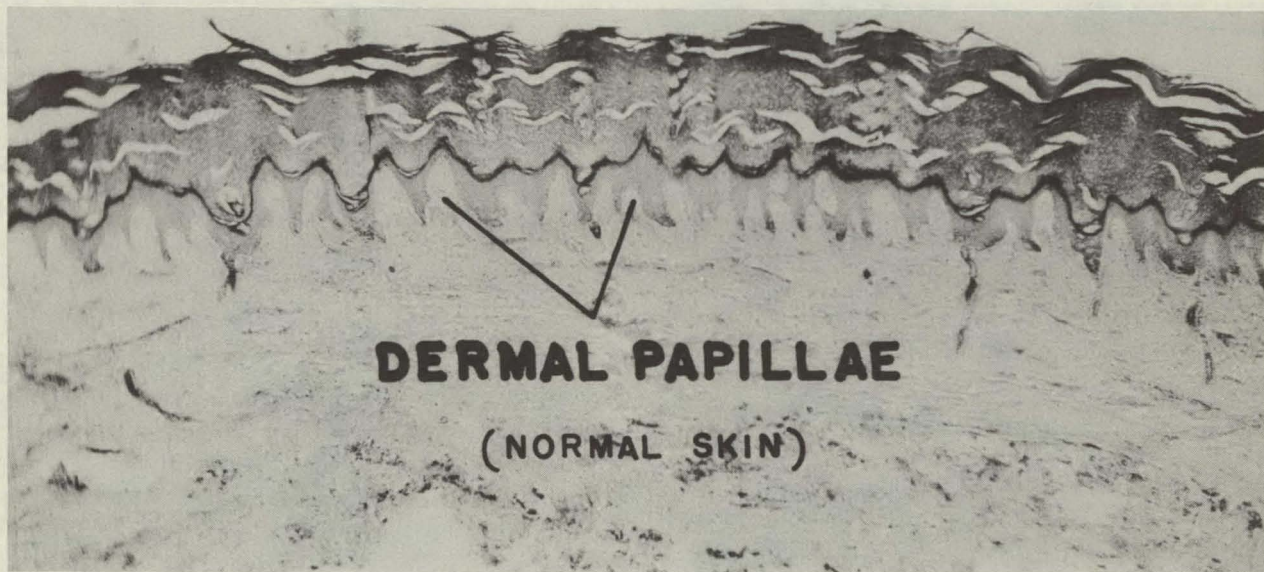
Prints of the described type, including Tatsuo Takeshita's, may be identified exactly like those of normal appearance. Ridge characteristics are permanent and numerous. Difficulties which may be encountered relative thereto, such as procuring legible impressions, are practical rather than technical, and are no greater than those often met with

in printing elderly persons.

Classification for filing purposes is no problem. Where the distortion of the ridges is such that the pattern is not present, the impression is classified as a meeting whorl. Consequently, if all 10 fingers lack definable patterns, set of prints is classified as—

*M 32 W MMM.*

*M 32 W MMM.*



*Photomicrographs of skin sections from normal and abnormal ridged areas. Note greater regularity of dermal papillae in normal finger.*



# WANTED BY FBI



*Henry Clay Tollett.*

**HENRY CLAY TOLLETT, with aliases: Clay Henry Tollett, Claye Tollett, Howard Web, Frank Woods, "Seminole"**

## *Escaped Federal Prisoner*

On November 22, 1949, Henry Clay Tollett escaped from the United States Penitentiary at McNeil Island, Wash. The convict, serving a 25-year term for bank robbery, managed to slip under tarpaulins covering a truckload of office furniture which had been refinished in prison shops and hid in the knee well of an unusually large desk. The load of furniture was transported to the mainland by ferry. Tollett left his hiding place when the truck reached Tacoma, Wash., and evaded capture.

The subject has a long criminal record, including convictions and sentences to McAlester State Penitentiary at McAlester, Okla., of 2 years for larceny, 5 years for robbery, 5 years for larceny of an auto, and one 30-year term for robbery. He was received at McNeil Island on May 27, 1948, under a 25-year sentence resulting from his participation in the robberies of the State Bank of Sweet Home, Sweet Home, Oreg., and the E. G. Young & Co. Bank, Oakland, Oreg., in 1947.

Tollett is armed and is extremely dangerous. He is reported to carry a gun in a special pocket in his left sleeve and one under the front seat of his automobile.

The subject is described as follows:

Age.....	56.
Born.....	July 21, 1894, Howard County, Ark. (not verified).
Height.....	5 feet 8½ inches.
Weight.....	180 pounds.
Build.....	Heavy.
Hair.....	Gray, often dyed black.
Eyes.....	Brown.
Complexion.....	Medium.
Race.....	White.
Nationality.....	American.
Occupation.....	Barber, butcher, farmer, make-up artist.
Scars and marks.....	Faint cut scar below outer corner of right eye; appendectomy scar; tattoos "Henry—Goldie—Clay," black cat, and "13" on left calf.
Remarks.....	Two upper front teeth bridged with crowns on adjoining teeth; walks with a slouch.
FBI No.....	15,098.
Fingerprint classification.....	7 25 Wa 18 1 aU

Any person having information which may assist in locating Henry Clay Tollett is requested to notify immediately the Director of the Federal Bureau of Investigation, United States Department of Justice, Washington 25, D. C., or the Special Agent in Charge of the Division of the FBI nearest his city.

## **Hit-and-Run**

### **Driver Convicted**

#### **by Telltale Paint**

On the evening of November 23, 1948, the battered body of Mrs. Anna Chekonik, 68, was found beside the road in Lower Yoder Township, Pa. Victim of a hit-and-run driver, she was still living, despite broken bones, cuts and bruises.

A lengthy investigation pointed suspicion to one Rudolph Gawlas who denied any knowledge of the accident. On January 3, 1949, however, a formal charge of failure to stop at the scene of an accident was lodged against him.

Pennsylvania State police officers who had searched the scene of the accident, found several paint chips. Paint chips were secured from the right front fender of the suspect's 1935 Oldsmo-



bile. Both specimens were forwarded to the FBI Laboratory for comparison. Both samples were found to consist of nine layers of paint, similar in all respects.

An FBI Laboratory examiner testified on March 23, 1949, at the trial of Gawlas that the chips of paint found at the scene of the accident and those removed from the suspect's car contained nine layers of paint which matched in color, color sequence, layer structure, type texture, and composition. He concluded that all of the paint came from the same automobile.

The suspect was convicted and was sentenced to serve from 3 to 6 months in the county jail.

## **Handprinting Aids in Solving Murder**

On August 3, 1949, postal employees in the Benton Harbor, Mich., Post Office found a printed card in the mail which had been removed only a short time previously from a box in front of the post office.

The card read: "Dead man in jungle camp at end of St. Joe dump. Endustrial Ave. just fond".

Benton Harbor Police turned the card over to the St. Joseph Police Department, inasmuch as the dump in question is on an island in the St. Joseph River which separates Benton Harbor from St. Joseph and which is within the city of St. Joseph.

Officers found the body of a man, partly covered by a piece of burlap, in a section of the dump used as a "jungle camp" by tramps. Investigation by the St. Joseph Police Department resulted in the body's being identified on the following day as that of Charles Brown, formerly a hotel employee, but who had more recently spent his time among the inhabitants of the jungle camp and who acted as a banker to the tramps and made small loans to them.

Sewed in the lining of an overcoat in the room in which Brown had lived, police found a wallet containing \$701 in cash. Postal savings certificates in the amount of \$2,410, a \$100 war bond and a bankbook showing a sizable balance were found in a dresser. No money was found on the man's body.

An autopsy disclosed that the victim had been shot twice. A .22 caliber bullet was located in the skull. The second bullet was not found. Time of death was fixed as August 2, 1949.

A city employee advised investigating officers that on August 3, 1949, he had seen one Carmen Smith on the island where Brown's body was found. At the time, Smith lived in a shack on the Benton Harbor city dump across the river channel from the island.

Chief Tom Gillespie of the St. Joseph Police Department questioned Smith. The latter acted surprised and shocked to learn that Brown had been found dead. He admitted knowing the victim but disclaimed any knowledge of the man's death. The day on which he had been seen on the island was the one following that determined by the autopsy to have been the day of the murder. The murder weapon could not be found. Search of Smith's shack failed to disclose the presence of a possible death weapon. There was no real evidence to connect the man with the murder.

Chief Gillespie obtained specimens of Smith's handprinting and transmitted them to the FBI Laboratory. The handprinted card found by postal employees also was forwarded to the Laboratory. No conclusion could be reached as a result of the examination. Chief Gillespie was asked for additional specimens containing the wording on the printed card. He secured these. As a result, the FBI Laboratory identified the handprinting on the card as having been written by Carmen Smith.

Chief Gillespie and members of his department took Smith into custody. Informed that his handprinting had been identified, Smith, questioned further, confessed that he had killed Brown. He took officers to the place at which he had hidden the death weapon—an old model pistol with an over and under barrel capable of firing a .22 caliber shot from the upper barrel and a .44 caliber bullet from the lower barrel. Smith admitted using the gun in killing Brown and said he had fired shots from both barrels.

The subject claimed that he had killed Brown in self-defense, following a quarrel. He produced a long knife with which he claimed Brown was about to attack him when he fired. The autopsy, however, revealed that the bullets in question had entered Brown's body at the back of his head and neck.

Carmen Smith was charged with first-degree murder. On order of the Berrien County circuit judge he was examined by psychiatrists and found to be mentally ill. He was, as a result, confined by court order to the Michigan State Hospital for the Criminally Insane, Ionia, Mich.



## *Questionable Pattern*

# FINGERPRINTS



The pattern reproduced this month is classified as a loop with four ridge counts in the Identification Division of the FBI.

The delta is placed on the bifurcation at

point D and the core is located at point C. The innermost recurving ridge has an appendage attaching between the shoulders but it does not strike at a right angle and consequently does not spoil the recurve.