

• *Restricted to the Use of Law Enforcement Officials*

FBI

Law Enforcement

BULLETIN



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J. Edgar Hoover, Director

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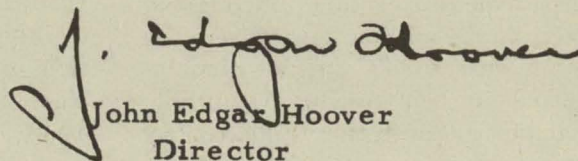
TO ALL LAW ENFORCEMENT OFFICIALS:

Law enforcement has a common enemy in the criminal. In normal times, by close cooperation, the various branches of law enforcement manage to circumscribe his activities and, in a measure, keep him under control.

But these are not normal times. Whenever the security of the Nation is threatened, there is disruption in all walks of life. The reservoir of the Armed Services siphons off available man power and the depleted ranks of law enforcement are required to bear increasingly heavy burdens. Law enforcement agencies, particularly at the local level, are inextricably involved in matters of civil defense, expansion of industrial facilities, and disruption-born problems of juvenile delinquency.

These are the realities we face in the present crisis. We shall need every measure of citizen-cooperation we can summon in order to discharge our responsibilities. It behooves us to bear ourselves at all times in such a manner that we both merit and receive the cooperation of the citizens we serve.

Very truly yours,


John Edgar Hoover
Director



FEATURE ARTICLE

Introduction

In the past 15 years a change in the attitude of police toward traffic law enforcement has brought about a growing demand for traffic training. Formerly traffic work was looked upon in some quarters as an undesirable job, one to which officers were often assigned as a disciplinary measure. Some departments considered traffic work principally as a job for recruits or officers who did not demonstrate sufficient ability to progress in other lines. A few believed it should have no place in the police department's work. The magnitude of the traffic problem in recent years has changed the attitude of many departments. Today most police administrators recognize that traffic-law enforcement is as important as any other major police duty and that the attitude of the public toward the entire police department is often determined by how well the traffic work of a department is handled.

Experience has proved that the development and operation of a sound traffic law enforcement program are not tasks for the untrained police officer, but a duty requiring men as capable and well trained as good investigators. There has been a great demand, consequently, for training in this type of police work, and current conditions reflect that an even greater demand for traffic training will be forthcoming in the next few years, as more cities experience the effects of increasing automobile use.

More than 8 million new motor vehicles were manufactured in the United States in the past year (1950). Automobiles are now being driven more miles each year than before. The average age of the automobile before being junked has more than doubled in the past quarter century. Roads and streets are better, and 3 million new drivers are being added each year to our driving population—a total which in 1949 reached 53 million. These factors indicate that better traffic control will be an absolute necessity in the future. Many

FBI Provides Varied Traffic Instruction¹

by JOHN EDGAR HOOVER, *Director, Federal Bureau of Investigation, United States Department of Justice*

police departments, struggling with the traffic pattern in the past, will have even greater problems. Other departments, not heretofore experiencing much difficulty with parking, traffic congestion, and accidents, will find growing problems in their cities.

One of the greatest needs today is for better control and supervision of traffic in rural areas. In recent years, while urban areas have reflected an appreciable improvement in accident rates, rural communities have not shown corresponding gains. The FBI recognized many years ago the great need for police training not only in larger cities but also in rural areas and small cities. America, in large part, is composed of small cities and large rural areas. Aid in police training in these places was necessary, because departments in small cities have found greater difficulty in obtaining qualified instructors. Consequently, a proportionate part of the cooperative efforts of the FBI in the field of training has been directed toward such areas. Through local departmental schools, specialized schools, advanced schools, zone schools, regional schools, and other types of training programs, the FBI upon request has been able to assist local, town, city, county, and State agencies in meeting their police training needs. Due to the scope of the traffic problem, instruction in traffic enforcement and control has been recognized as an essential part of such schools. To virtually all departments the traffic problem is a major responsibility.

FBI National Academy

The FBI, recognizing this need, introduced traffic training into the very first session of the FBI National Academy held in 1935. Traffic at that time was receiving recognition as a definite problem. Many communities, for the first time, were experiencing traffic accidents and serious congestion problems. Some police officials had tried various experiments in traffic control, ranging from very

¹ Reprinted from July 1950 issue of *Traffic Quarterly*, journal of the Eno Foundation. (Revised.)

loose control to rigid enforcement of all regulations. They were frequently criticized regardless of the program they had undertaken. Many people, previous staunch supporters of the police, became hostile when they received a parking ticket, a speeding summons, or a "bawling out" from an officer of the "old school."

Today the picture is changed. Every progressive police chief recognizes that traffic control is a major police duty and that the community will look to him to provide efficient, safe regulation.

Through the facilities of the FBI National Academy, traffic instruction has been provided for many officers who today stand at the head of their departments or in other positions of responsibility. It is the purpose of the academy to provide training for police executives and police instructors, who, of course, have a need for traffic training and instruction.

A study of the progress made by more than 2,200 graduates of the academy shows more than 26 percent of all graduates now head their departments. Another group, much larger in number, occupy high administrative, executive, and responsible supervisory positions. This is a testimonial to the wise choice made by the local departments in selecting those who attend this school. Obviously all officers who have responsible supervisory positions and particularly those who are in administrative positions should have a keen appreciation and understanding of the traffic problem. The development of police executives and instructors cannot be accomplished without adequate training in traffic law enforcement.

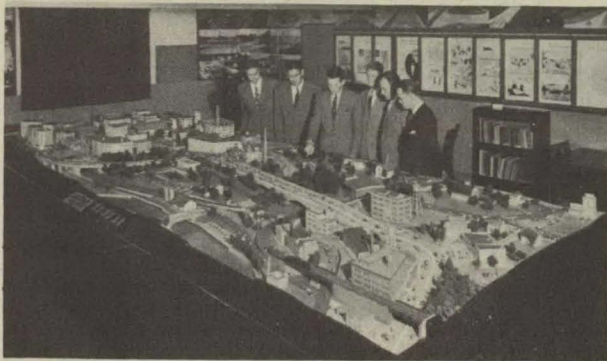
The beneficial results of National Academy traffic training for the community may be illustrated by the following case. A graduate, upon the retirement of the chief who had selected him to at-

tend the academy, was appointed as the new chief. He had served, prior to his promotion, in many positions, from patrolman to head of the detective division. Nearly all his experience had been in general policing and as a criminal investigator. He had served in his department for 9 years and was recognized as a capable police officer. When appointed head of his department city officials told him that although they expected him to carry on all police activities in an efficient manner, the most pressing problem was the traffic situation. He was instructed, therefore, to initiate and to conduct a sound program in traffic law enforcement and control. Later this officer reported that he had relied heavily upon the training he had received in the FBI National Academy to organize and conduct a traffic program which proved to be successful in the years which followed. It is believed that as a result of this training many law enforcement agencies have better traffic programs because their officials have a more thorough recognition of the importance of traffic control in the over-all police field.

Local Police Training

Traffic instruction in the National Academy represents only a fraction of the cooperative training services provided for police officers by the FBI. Years ago the FBI began making the services of its instructors available to local law-enforcement agencies when requests were made for such assistance. Graduates of the academy upon returning to their departments and others began requesting the FBI's aid in conducting schools. So great have been the requests for this assistance that in 1950 the Bureau cooperated in 2,782 schools for local law-enforcement agencies. From 1946 through 1950 assistance was requested in more than 8,400 local schools. Year by year the number of such schools has increased.

A majority of the schools conducted by the FBI are general police training schools in which basic subjects including traffic enforcement are covered. Others are specialized schools devoted exclusively to such subjects as fingerprinting, firearms training, traffic, defensive tactics, photography, records, and juvenile delinquency control and prevention. In 1949, 150 specialized traffic schools were held. These specialized traffic schools have included as much as 100 or more hours of instruction, all devoted to a study of the traffic enforce-



Traffic problems are discussed with aid of diorama at the FBI National Academy.

ment problem. The major portion of FBI traffic training, however, is in general police training schools. Experience has taught that it is better to provide traffic training as part of general schools rather than to concentrate on specialized schools. Usually instruction is found more beneficial from a community standpoint in general police schools. There are, of course, exceptions, but the primary reason for including it in general schools is to interest all officers of the department in the traffic problems of the department. When traffic enforcement is integrated into a general police school, there is better opportunity to emphasize the responsibility which all officers have in the traffic enforcement activities of the department. It encourages teamwork in all the problems of the police department. Aside from these facts, nearly every law-enforcement agency having a general police school will require that a fair share of the time of each school be devoted to traffic training. Therefore, traffic instruction is usually provided in all general police training programs, and it is in these schools that a widespread contribution is made in police traffic training.

Zone Schools

In many instances the FBI has conducted specialized traffic schools on a zone or regional basis so officers from several departments, a county or even a larger area might be able to attend. Typical of these schools was the series of schools conducted in New York State in the early part of 1949 under the joint sponsorship of the FBI, the New York State Association of Chiefs of Police, and the New York State Sheriffs' Association. Officers in attendance at these schools reported they found the subject of traffic most profitable and interesting. They demonstrated an enthusiasm of a pleasing type in making traffic surveys, and many of the techniques which were taught have since been used. They were intrigued with the operation of the Enoscope in measuring speeds and were surprised to find that they could easily and accurately determine speeds of motorists. In one city a controversy, which had existed between a local newspaper and the chief of police, as to whether a speeding problem actually existed in a certain area of the city, was solved. This incident cultivated better relations between the newspaper publishers and the police department.

In another instance the president of the local chamber of commerce was so impressed that he

promised to exert his influence with the city officials to obtain better traffic equipment and improved enforcement procedures.

One of the more popular courses in these schools was the subject of accident investigation. Interest was created in the subject initially by dramatizing the receipt of a hit-and-run case. Officers were called upon to question the "complainant." Then, by using actual case pictures taken from the files of one department, it was possible to discuss methods of investigation which would be employed in each case. This would include such fundamental procedures as examinations of the "victim's" body, the preservation of evidence, examination of the suspect car, the photographing and drawing of the accident scene, and interviews. The climax of the case came with the questioning of the suspect by instructors. In the course of interrogation of the suspect he was confronted by physical evidence and the results of the investigative leads. The scene ended with the subject's giving a signed statement confessing that he was the driver of the hit-and-run car. Fundamental investigative techniques can often be applied to such problems.

Another session, of special interest to the officers, concerned the subject of intoxication tests and the problems created by the drinking driver. Interest of the officers was undoubtedly provoked by the oft-repeated complaint that it is almost impossible to obtain a conviction for drunken driving. Films were used which showed how some police departments had used photography to obtain evidence against drunken drivers. The State laws relative to the admissibility of evidence were explained and the simple tests which any officer may make were described and discussed. In addition, the need for chemical tests and various methods of conducting such tests were thoroughly discussed.

Accident Investigation Schools

The FBI conducts short accident investigation refresher schools for departments which desire to give their officers a "brush-up" in the techniques of conducting simple accident investigations and hit-and-run accident investigations. Major emphasis is placed on the necessity for thorough investigations, the proper collection, preservation, and identification of evidence, the determination of the causes of accidents, and the preparation of complete, accurate reports.

Advanced Police Training Schools

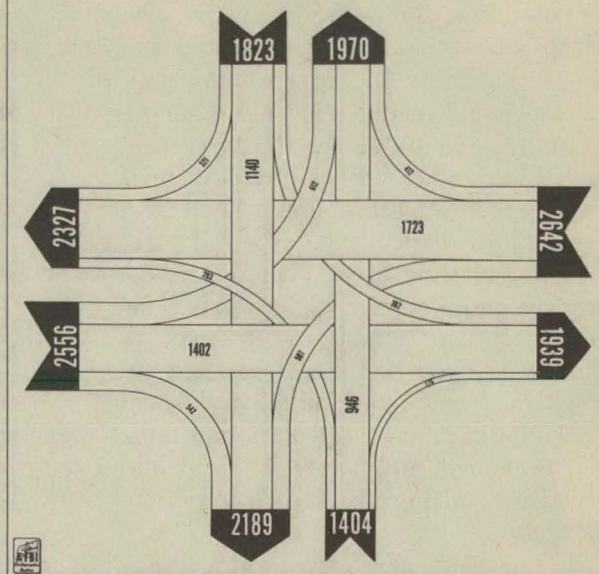
Typical of the advanced police training schools conducted by the FBI was the school for the Haverford Township, Pa., Police Department. Special emphasis was placed on the preservation, collection, and identification of evidence, investigative techniques, such as interviews, photography, charting and casting, and the preparation of cases for court, as well as testifying in court. The entire school was developed around a hit-and-run accident in which a small boy was supposedly struck by a passing car and seriously injured. A boy, 9 years of age, known as "Billy Bumper" for the purposes of the case, was found lying at the side of the road by a passerby who immediately called the police department. The accompanying photograph illustrates the type of training provided in another school. Every step is painstakingly carried through, as though occurring in an actual case. Instructors and designated observers make notes on all steps taken by the police to develop their case and prepare it for court. Reality is given to the case to the maximum extent possible which gives the police experience in meeting the various problems created in actual cases. Finally local judges, prosecutors, and attorneys are invited to assist in conducting a moot court trial of the accused. Prior to this time, however, all the investigative techniques have been employed in the investigation. All evidence was to be carefully preserved, identified and "examined" by the experts who would testify in the moot court. In the moot court, officers are required to testify; they have an opportunity to see how evidence is



"Victim" receives attention from class members investigating a simulated accident.

MARCH 1951

TRAFFIC FLOW AT INTERSECTION



Training chart of type prepared by officers studying traffic problems.

admitted, and why it is necessary to exercise care in preserving such evidence.

Technical Studies

In all of its traffic instruction the FBI has encouraged police officers to adopt factual approaches to the solution of enforcement problems. The importance of accident facts in developing a sound program of enforcement is emphasized. It is well recognized that to do a good job of accident prevention, police must know what causes accidents, when they occur, what violations are involved and what action should be taken to prevent similar accidents. Thorough investigation of accidents and accurate, complete reporting are required to obtain these facts. Accident investigation is a basic subject in all police-training schools.

Another method used to develop an appreciation for a factual or technical study of traffic problems has been the training given in conducting simple enforcement studies in police schools. These studies are essentially surveys at problem intersections or locations where some improvement in traffic control is needed. Officers are taught how to conduct volume studies of vehicle and pedestrian traffic; how to make observance studies of traffic signals, stop signs, speed and turn-

ing regulations; and how to study a group of reports on accidents at an intersection to determine their common causes. With very little training it is possible to show officers how they may conduct these studies and how their departments may benefit from the use of factual data they collect.

One department, after receiving this type of training, made a series of observance studies at several high-accident intersections where traffic was controlled by stop signs. These studies showed what might logically be expected. Many motorists were failing to stop completely before entering the major streets. There were numerous accidents. When the facts were known greater attention was given to the enforcement problems involved. A check back on the accident picture several months later revealed that much improvement had been made and that fewer accidents of the type usually resulting from such violations were reported.

In another community the enforcement of speed limits was greatly improved as a result of a series of studies conducted at various points where speeding violations were frequent. When it was found that nearly one-half of all motorists passing the points of study were violating the speed limits, police authorities decided that their program on speed control required thorough study and overhauling. Although some officers not primarily involved in traffic enforcement at first doubted the value to them of this type of training, usually they were surprised to see how easily such studies could be made, and how much factual information of real value is obtained in a short period of time, and they find pleasure in the resulting improvements.

This training, although it may not be utilized immediately by some officers who receive it, does encourage the use of factual data to study problems. One of the ways in which this training can be readily used by every department is in the handling of traffic complaints. The department may receive a complaint that speeding is common on a particular street. If an officer knows how to conduct a speed study, he can with little equipment obtain sufficient facts in a short time to substantiate or disprove the allegation. It is then possible for the department to advise the complainant of the results of the study and to take whatever action the facts indicate to be warranted. Handling complaints in this manner will develop better public relations and provide factual data for the

department in determining what should be done on all such matters.

In all traffic instruction that is provided by the FBI, an attempt has been made to develop more interest for traffic-law enforcement among all officers of a department. All officers should be prepared to enforce traffic laws in the regular course of their duties. Although the need for specialization of duties on a staff basis is recognized, overspecialization on a line basis tends to encourage apathy, indifference, and a disregard of traffic violations by some officers not assigned to the traffic division. This often results in less effective enforcement of traffic laws, an increase in violations and a corresponding trend toward more traffic accidents. To prepare more officers for these regular enforcement and control functions promotes teamwork, versatility, adaptability, and trains otherwise qualified personnel for promotion to broader administrative and executive positions.

It is encouraging to see that law-enforcement agencies are now recognizing the proven merits of this increased interest and knowledge of a big problem in almost all departments.

NOTICE

Submission of Fingerprints

A survey made of arrest fingerprint cards recently received in the FBI disclosed a tendency on the part of some law enforcement agencies to hold arrest fingerprint cards for several days until a group had accumulated before submission to the FBI for processing.

Approximately 4 percent of all arrest fingerprint cards submitted must be returned to the contributor because of illegible impressions or missing data.

It is possible that by delaying submission of fingerprint cards or submitting incomplete or illegible fingerprint cards one of the primary purposes of having a central clearing house for arrest information will be defeated in that fugitives may be released prior to notifying the law enforcement agency having a wanted notice.

If legible fingerprints are taken and all the necessary descriptive data are submitted promptly by all law enforcement agencies, the FBI will be able to render more efficient and expeditious service. Your cooperation in these matters will be greatly appreciated.

IDENTIFICATION

Assembly of FBI Identification Division Data

Purpose

The Assembly Section is a unit of the FBI Identification Division. There all the available information concerning an individual who has an FBI identification record is collected or "assembled" in a single folder or "jacket." This information is derived from fingerprint cards and disposition sheets submitted by authorized contributors. The Assembly Section also is responsible for verifying all identifications made by employees assigned to the Technical Section, functions of which were described in the article "Separate Identification Files of the FBI" and charted in the article "FBI Identification Division Services and Procedures" which appeared in the October and November 1950, issues, respectively, of the FBI LAW ENFORCEMENT BULLETIN. In the Technical Section, identifications are made on the basis of comparison of newly received fingerprint cards with those previously submitted and maintained in the master files of the FBI Identification Division.

Nature of Data

In the main, the Assembly Section is composed of files containing the fingerprints, disposition sheets, photographs, correspondence, and all data pertain-

ing to the criminal or civil fingerprint records of individuals. With 5½ million separate folders on hand and a daily addition of approximately 1,200, the immensity of the files becomes readily apparent. There are at present 6,000 six-drawer cabinets in which these folders are filed. All filing in this section is done by FBI number and therefore in numerical sequence. Because of the nature of the records contained in each separate folder, it is essential that this data in an individual's folder be checked thoroughly for accuracy and positive identification with that individual.

Careful Check

Verification of fingerprint identifications is one of the chief duties of this section. It provides a double check on all identifications made and precludes the possibility of erroneous information being distributed to any of the numerous contributing agencies. In checking the fingerprint cards for verification of an identification, a complete comparison is made of all 10 fingers on the newly received fingerprint form against those impressions previously submitted and retained in the FBI master files. In making this examination, special attention is given to delta formations, ending ridges, bifurcations, and any peculiar formation that contributes to positive identification. When this action is completed, the fingerprint technician indicates that the forms are identical by affixing his signature to both sets of prints. All fingerprint forms are checked in this manner before being filed. Disposition sheets, correspondence, photographs, etc., are all checked for FBI number, arrest number, or sufficient descriptive data to make certain that identity is assured.

Processing Expedited

When a current set of fingerprints is received in the Technical Section and is identified with a set already in file, only one of the two is retained in the Technical Section file. In many instances the



General view of part of Assembly Section.



Assembly Section employee checking folder against individual record before filing.

master set on file is but one of scores of other prints for the same individual. If all these prints were retained in the active file, present searching procedures would be impractical. An excessive amount of time would be required to search each incoming print through the file. By retaining only the most legible print for each individual in the active file, the searching process is greatly expedited. The additional prints are filed in the Assembly Section jackets.

Assembly and Verification

Handling procedures vary according to the number of times cards have been previously submitted to the FBI for a person involved in a current identification.

In some instances the fingerprint card against which a current incoming print is identified will be the only one previously received for that particular person. In such cases the Technical Section fingerprint employee compares the incoming print with the set previously on file and selects the more legible one. This more legible print is designated as the master and both cards are routed to the Assembly Section. There the identification is verified by expert fingerprint personnel and the print designated as the master is so stamped. Both cards are also stamped with an FBI number and a correspondingly numbered folder is prepared for Assembly Section files. This is the folder into which are collected all fingerprint cards on an individual, other than the master print, as well as disposition sheets and other identification data, mentioned above. The folders are filed in numerical sequence according to FBI number.

When the numbering process has been completed, both fingerprint cards are sent to the Typing Section so that a form may be prepared advising the contributor of the current print as to what record was found in FBI files. Both prints must be sent to the Typing Section, of course, in order that the information on the print taken from file may be included in the record for a particular individual.

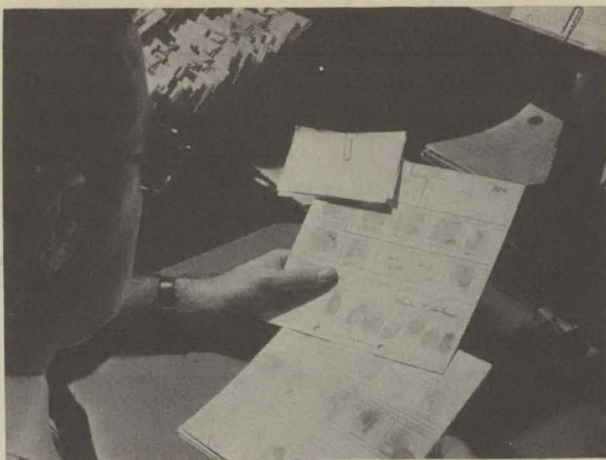
After the Typing Section completes handling of the fingerprint forms, the card stamped "master" is returned to the Technical Section for insertion in its correct place in the active files by classification formula. The second print is placed in the appropriately numbered folder in the Assembly Section.

Prior Records

When a current card received in the Technical Section for search bears the fingerprints of a person for whom two or more cards have been received previously by the FBI, the procedure is somewhat different. In this instance, the only one of the previously received cards to be found in the Technical Section file will be that which has been selected as the most legible and stamped



Placing folders in file in numerical sequence.



Assembly Section verifier checking incoming fingerprint record against card in folder.

"master." The identification of the current print will be effected against this master print, but only the current print will be routed to the Assembly Section. The Technical Section employee, at the time of effecting the identification, notes on the incoming print the FBI number appearing on the master card. When the incoming print is received in the Assembly Section, the folder bearing that FBI number is removed from file and referred with the current print to the assembly employees charged with verifying the identification. These verifiers make their comparison against the fingerprint card or cards contained in the jacket.

This method of handling permits the master print to remain in the Technical Section file at all times. Preparation of charge-out cards for master prints involved in current identifications is largely eliminated. If this procedure were not used it would be necessary in each instance to trace charged-out master prints for comparison with additional, currently received prints, similarly classified and appearing to be possibly identical.

Amputations

In the event that a current print is received with a new scar or amputation and an identification is made against a master print in the searching file, careful note is made, since the classification formula may have to be changed for accurate filing. When a new amputation appears on a current print, the missing finger is given a classification identical with that of the opposite finger, including pattern and ridge count or tracing. Contributors should make special note to the effect that

a certain finger or fingers have been amputated, in order to facilitate searching and filing. This prevents the appearance on later cards of impressions of fingers thought to have been amputated but which in reality were merely injured and bandaged when previous prints were submitted. When the pattern area of one or more fingers is completely scarred so the impression cannot be definitely classified as to pattern type, the same classification procedure as for amputations is put into effect.

In the majority of cases in which a new amputation or scarred finger makes its appearance on a newly received print and an identification is effected, both fingerprint cards are sent to the Assembly Section for verification. It is then incumbent on the fingerprint verifier there to ascertain whether or not the current print should be made master. If the change is to be made, the notation "AMP" is stamped on the appropriate space on the fingerprint card and the necessary changes made in the classification formula. The new master print is then routed to its proper place in the Technical Section file. The previous master print has the stamped word "master" obliterated and is filed in the jacket in the Assembly Section.

Conclusion

This description of assembly procedures followed in the FBI Identification Division is being presented to interested law enforcement officers as a means of clarifying this phase of handling fingerprint records submitted by them. Law enforcement agencies can materially assist in the expeditious handling of work in the FBI Identification Division, by indicating the FBI number, whenever it is known, on all forms sent to the FBI.



Expert fingerprint personnel verifying identifications.

Identification Problem

At approximately 1:30 a. m., on August 26, 1950, a fire of unknown origin was discovered at the Denver Hotel, 1227 Seventeenth Street, Denver, Colo. Four companies responded to the alarm but the flames raged through a portion of the structure with unusual rapidity.

Two persons were pronounced dead at the scene. Of nine persons taken to the hospital for treatment, two later died of injuries. The identity of these individuals was known. The less seriously burned of the two men pronounced dead at the scene of the fire was tentatively identified by the hotel manager. Fingerprints of this man were taken at the morgue in the regular manner and forwarded to the FBI where the unknown was readily identified.

The second victim of the fire posed a real problem in identification. The body was burned so badly that facial features were obliterated. Even characteristics of height and weight could not be readily determined with accuracy, and the hands, arms, and upper chest were so badly charred that taking fingerprints in the regular manner was impossible.

Detective Joseph Moomaw and Officer J. C. Cann of the Bureau of Identification carefully removed the tips of the dead man's fingers and placed them in individual bottles, each numbered according to the corresponding finger.

Sgt. J. F. Shumate, in charge of the police laboratory, removed the skin from the burned fingers and began attempts to restore it to a semblance of its original condition.

He first soaked the removed skin in a 2 percent solution of potassium hydroxide for a period of from 15 minutes to one-half hour for each finger, depending on the amount of shrinkage caused by burning. The skin was then washed with water and subjected to softening by immersion in xylol for periods of from 15 minutes to a half hour. After the skin had been dried with acetone, Sergeant Shumate placed the softened skin over the tips of his fingers, inked them in the regular manner, and obtained a set of fingerprints of the dead man. The impressions were not of a quality conducive to accurate searching, however, and Sergeant Shumate continued in his efforts.

The sergeant next stretched the softened skins of the fingertips over corks pinned to a regulation fingerprint card. The prints were numbered according to finger, and they were assembled in

reverse order for photographing. That is, the right thumb was placed on the right side of the card with the right index finger next, then the right middle, and so on, with the little finger at the left side of the card. The left hand was treated in the same manner and the photographs were taken. When the negatives were printed they were printed in reverse; i. e., with the emulsion of the printing paper facing the slick side of the negative. By this means, the resulting photograph correctly depicted the fingerprint impressions, and also portrayed the fingers in proper order for classification.

A set of these fingerprints was forwarded to the FBI. A search revealed the identity of the second victim, whose fingerprints were on file as a registered alien.

In view of the fact that the hotel in question catered in the main to a transient trade, it is doubtful that, but for the fingerprints, either victim would have been identified. Neither of the men had relatives in Denver. One was a cattleman. The other was unemployed, and not a regular resident of Denver.

As a result of the identifications, it was possible to locate and notify relatives in each case.

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Arson Seminar

This notice is presented at the request of Mr. Francis Hartman, Department of Fireman Training, Public Safety Institute, Purdue University, LaFayette, Ind.

The seventh annual seminar and training course for arson investigators will be conducted at Purdue University, LaFayette, Ind., April 23-27, 1951, according to an announcement by Prof. Shelby Gallien of Purdue's Public Safety Institute.

This seminar and training course offers specialized study and discussion of arson investigation problems under the guidance of police and fire specialists from all parts of this country and Canada. The seminar is conducted by the Indiana Fire Service Training Schools and the Public Safety Institute of Purdue University, with the cooperation of local, State, and national organizations interested in arson control and prevention.

Further information and complete details of the 1951 Arson Investigators' Seminar are available from the Public Safety Institute, Purdue University, LaFayette, Ind.

SCIENTIFIC AIDS

Definition

Petrography may be defined as a branch of the science of geology which is concerned primarily with the identification and classification of rocks and sediments. This definition has been construed to cover the study of soils and other mineral substances, including artificial ones. These artificial substances can include such commercial products as safe insulations, plasters, cements, concrete, ceramics, and other such materials.

Purpose

The application of petrographic methods to the study of soils is not new. Soils have been studied for years by Government, State, and private organizations, mainly from an agricultural viewpoint. Within the past 15 or 20 years, however, criminologists have viewed soils and other mineral matter in a new light and have turned these almost universal substances into a new channel of use—the detection and prosecution of the criminal.

The FBI Laboratory has done a considerable amount of research in this field, studying soil variations, commercial mineral products, and natural and synthetic minerals with the object in mind of helping the investigator in placing the criminal at the scene of the crime, destroying alibis of the subject, and aiding in the prosecution of the case.

Methods

Petrographic methods of analysis are used in conjunction with other methods, such as X-ray and electron diffraction, spectrographic analysis, thermal analysis for the determination of the clays and hydrous compounds and chemical analyses.

Petrographic analysis is primarily microscopic

¹ Based on a paper presented before the American Academy of Forensic Science Section of the American Association for the Advancement of Science, Cleveland, Ohio, December 30, 1950, by Special Agent R. H. Jevons of the FBI Laboratory.

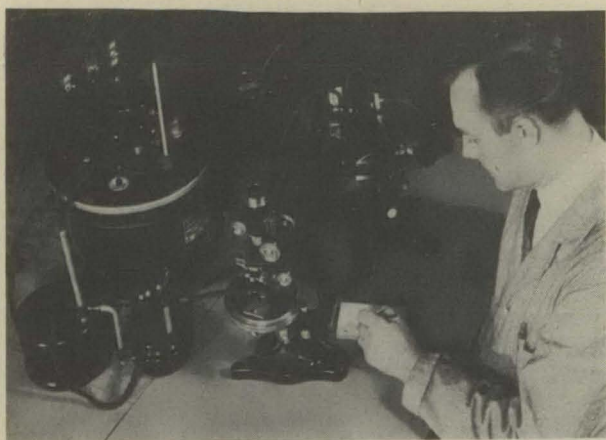
Petrographic Aspects of Scientific Crime Detection¹

in which a polarizing microscope is used for determining the optical properties of crystalline mineral substances. From a study of the optical properties such as polarization, character, optic sign, index of refraction, optic orientation, extinction, sign of elongation, dispersion, absorption, and pleochroism, the mineral can be identified. When difficulty is encountered, occasionally, due to opacity, alteration, character, or particle size, other means of identification must be resorted to.

X-ray diffraction methods of analysis afford a ready means of identification of questionable soil minerals, if present in sufficient quantity. The instrument used in the FBI Laboratory incorporates a Geiger-Muller counter and records the positions and intensities of the diffracted X-rays on a continuous chart. A study of these characteristics enables one to determine the molecular composition of the sample.



The analysis of a soil specimen by means of the petrographic microscope.



Precision refractometer and allied equipment used in determining refractive indices in the FBI Laboratory.

The electron diffraction unit of the electron microscope is used to good advantage when only a minute quantity of the specimen is available. The electron microscope itself has been used to view the shapes and outlines of the clay minerals for possible identification.

Spectrographic means of analysis are resorted to, particularly, with the difficult opaque minerals that are present in small quantities and minerals not otherwise identifiable by their optical properties. The instrument used for this purpose is a medium quartz spectrograph. There is also available in the laboratory a large Jarrell-Ash grating spectrograph, having a linear dispersion of approximately five angstroms per millimeter, which makes this instrument particularly useful in quantitative determinations.

Thermal analysis is probably one of the best means for determining the clays and hydrous compounds present in soils. These types of material possess definite thermal properties that aid materially in their identification. An instrument has been devised which records the intensity and the temperature at which occur the exothermic and endothermic reaction taking place in a sample of clay as it is heated from room temperature to 1,000° C.² The types of minerals present in the clay or soil are determined from a study of the resulting curve.

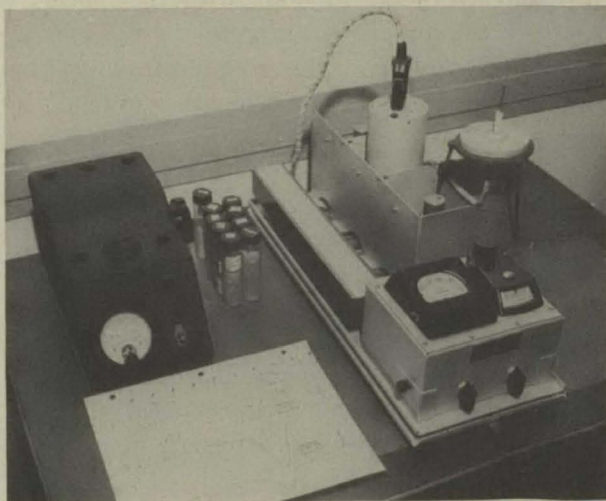
These methods of analysis are all recognized methods and in most instances are used extensively in commercial and private laboratories as general procedure.

The procedure of soil examination involves, when practical, mechanical analyses, color determination, heavy mineral separation, identification of individual constituents with the petrographic microscope and other means, identification of fossils (if present), grain counts, determination of grain size and character, identification of the fine fractions (clays and silts), and, lastly, the evaluation of the results.

Application

The value of soil examinations depends largely upon the number of samples available for study. The more data obtained from an area under investigation, the more readily one can determine the variations to be expected. The more variations there are in the area, the more conclusive can be the results.

The value of soils as evidence depends wholly upon the fact that soils differ in various characteristics over the surface of the earth. It has been found from actual surveys and the study of evidence specimens that there are variations among soils. It has been found, too, that soils vary more in some areas than in others. For instance, soils and sands of outwash plains and beaches and other areas where they are worked and reworked by wave or wind action will tend to vary less than in areas where soils are formed "in place" or deposited from several mineral provinces without extensive reworking. In some instances, recourse to foreign material in the soil is necessary; that is,



Differential thermal analysis instrument used for determining clays and hydrous compounds in soils.

² Crim, R. E., and Rowland, R. A., Differential Thermal Analysis of Clays and Shales, A Control and Prospecting Method, *The Journal of the American Ceramic Society*, Vol. 27, No. 3, 1944.

industrial debris and other material associated with the activities of man.

In view of the variations found in soils, they can be and are being used as circumstantial evidence in crimes of violence, such as murder, rape, assault, hit and run, and less serious crimes of breaking and entering and burglary. It is particularly valuable when used in conjunction with other evidence. For example, a few years ago there occurred a murder in a park in Washington, D. C. The body of an elderly woman was found stuffed under a park bench. There were signs of violence on her person and in the immediate vicinity. No one was found to have observed the crime. A person was found, however, who had seen a man leave that particular section of the park the evening before the body was found. This person was able to give a general description and as a result a logical suspect was apprehended by the local police. This suspect was drunk and was in a rather disheveled condition. The front of his shirt had bloodstains on it. On his trousers and in the trouser cuffs a relatively large quantity of dirt was found. He claimed he had been in a fight and the blood was from a nosebleed he had suffered as a result of the fight. Also that the dirt was from the ground where he had scuffled. He further claimed it had been several years since he had been in the section of the park where the body was found.

The clothing with the dirt and bloodstains on it was submitted to the FBI Laboratory for examination. The police also submitted known blood specimens of the suspect and victim and a large number of dirt samples from around the crime scene and from the area in which the suspect claimed the fight took place.

An examination of the dried bloodstains on the shirt revealed them to be of human origin and of a blood group different from the suspect's. A comparison of this blood group with the victim's showed them to be the same.

The examination of the dirt from the trousers revealed it to be identical to the sample of dirt taken just 10 feet east of where the body was found and different from all the other specimens, including the ones taken from the area in which the suspect claimed the fight had taken place.

This evidence and the results obtained from it certainly helped disprove the suspect's alibi as to the source of the bloodstains and the dirt on his clothing and his statement to the effect that he had

not been in that section of the park. It aided those investigating the case in placing the suspect at the scene of the crime and subsequently assisted in the prosecution of the criminal.

In connection with cases of burglary and breaking and entering, soils play the same role of helping place the suspect at the scene, disproving alibis, and assisting in the prosecution of the case as in the crimes of violence.

Safe Insulation

Other mineral substances are also valuable in these cases of crimes against property.

Safe insulations or the substances used for fireproofing safes have been found to vary among the various makes of safes according to the manufacturer's specifications.

In each instance the safe insulation is a mineral substance or artificial mixture of mineral substances that can be analyzed as other like substances of natural occurrence to determine identity and possible source.

The compositions of many of the safe insulations are trade secrets and cannot be published. The FBI Laboratory, however, does maintain a file of safe insulations used by the major companies and uses them for study and for comparison with evidence specimens.

There are two major types of safes in which safe insulation is used. First, the strictly fire-resistant type which is usually of light sheet steel construction incorporating within its walls from two to six or more inches of insulation depending upon its size and warranty. The second type of safe using fireproofing insulation is a combination of fire-resistant and burglar-resistant type of safe. It is usually constructed in a manner similar to the fire-resistant type with the exception of an inner box or compartment made of heavy construction to afford burglar resistance.

These types of safes can be broken open by one or more of several means. In the terms of the "trade" we might refer to them as "blowing," "ripping," "punching," "drilling," and others. Usually when the safe is broken open, the insulation is disturbed, falls out onto the floor and subsequently finds its way into the shoes, clothing, or tools, according to the activities of the subject.

In most instances the insulating material can be definitely identified as safe insulation, the presence of which is indicative of guilt unless, of course, the

suspect is legitimately employed in safe manufacturing or safe repair. With exceptions, the insulation can be identified as to the make of safe from which it came.

Some manufacturers use such common substances as plaster of paris or plain asbestos and, of course, these cannot be definitely identified as safe insulation. It was common practice to use in some of the older safes a natural cement insulation or combinations of cement, cinders, rock, and other aggregates. These types of insulation cannot be identified as to manufacturer or, in some instances, as to whether they are safe insulation. These are valuable as evidence, however, for if the suspect's clothing or tools possess the same substance as that in the broken safe it can still be considered as valuable circumstantial evidence.

In view of the technician's ability to differentiate among the various safe insulations, it is possible to identify two or more types of insulation in one subject's possession, thus tending to show involvement in more than one case. A good example of this occurred recently in a small town of southern Maryland in which a movie theater and a restaurant were entered and the safes of each broken into. Due to the alertness of the local police, the two subjects were apprehended shortly after the restaurant burglary. One subject took all the blame stating the other had nothing to do with the burglaries. In the trouser cuffs of the second subject, however, were particles of a natural cement type of safe insulation similar to the safe insulation from the safe in the restaurant. Also found in this subject's automobile were fragments of what is referred to as a vermiculite type of insulation similar to the insulation from the safe in the theater. The subjects had no defense against this evidence and subsequently each was sentenced to serve from 10 to 20 years in the State penitentiary.

Other Mineral Substances

Entry into buildings is sometimes made through the walls of the building which may be constructed of brick, mortar and plaster, concrete, or similar materials. When entry is made in such a manner the subject invariably gets foreign matter in his clothing or on his tools. The material in the subject's possession comparable to that from the wall is circumstantial evidence of the subject's participation in the crime.

The following example illustrates a manner in which plaster, brick fragments, and other evidence helped indirectly in bringing a criminal to justice.

An Eagle's Club office was broken into in a town of eastern Idaho. The safe was blown by use of nitroglycerine and the contents amounting to several hundred dollars were removed. Entry was made into the office by removing a portion of the brick and plastered wall. The office space was located on an upper floor just above the roof of an adjoining building. Investigation revealed the subject had rented a hotel room located in such a way as to allow him access to the roof of the building adjacent to the Eagle's Club. After the entry was made and the safe blown, the subject went back to his room and checked out of the hotel. Investigation in the hotel room revealed a quantity of plaster, brick fragments, and soft brown soap commonly used in sealing safe doors when blowing with nitroglycerine. They were identical with the material used in the construction of the wall and with the soap found near the blown safe. In view of this evidence, the former occupant was considered a logical suspect. Handwriting specimens were obtained of the suspect from the hotel register. Later a suspect was apprehended in Salt Lake City in the act of "casing" another Eagle's Club. Handwriting specimens were obtained from the suspect and compared with the signature on the hotel register. The handwriting was found to be the same in each instance.

This evidence gave the police the necessary information to solve the case and thus ended, for a time, the career of another burglar.

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Renegotiation Act

The Renegotiation Acts of 1942, 1943, 1948, and 1949, provide a method whereby the Government may recover excessive profits on its contracts, as determined by a price adjustment board. In cases of protest, the contractor may file a petition in the Tax Court seeking a redetermination. At the request of the Claims Division of the Department of Justice the FBI conducts audits of petitioners' books and records, principally to establish the amount of renegotiable business conducted and the net profits realized therefrom.

Adjustments in favor of the Government in such cases investigated by the FBI amounted to \$55,162,900 during the 1950 fiscal year.

POLICE PERSONALITIES

Former Chief Continues His Long Service

New President

The recently elected president of the Northeast Missouri Peace Officers Association is one of the oldest active peace officers in point of service in the northeast Missouri area. Lt. James Braxton Featherstone was born August 2, 1880, at Middle Grove, Mo. He engaged in farming until he was 25 when, as he puts it, "I decided to quit farming, put on shoes and go to Hannibal."

He obtained employment with a cement company and became foreman of the operating department. Later he was employed as a machinist with a railroad company prior to being appointed as a patrolman with the Hannibal Police Department on June 15, 1923.

The new patrolman's instructions were simple. He was admonished "neither to freeze nor drown."

Identification Work

In 1928 Lieutenant Featherstone studied fingerprinting and established the present identification division of the Hannibal Police Department. He



Lieutenant Featherstone.

served as identification officer until his selection as chief of police in 1939. He served three terms as chief of police, his last term ending in June 1945. Since that time he has been a lieutenant and is in charge of the identification division which boasts a total of 40,000 prints. Lieutenant Featherstone states that his department has solved many cases on the basis of fingerprint identifications, particularly in burglary investigations.

A former officer of the Missouri Peace Officers Association, Lieutenant Featherstone was elected president of the Northeast Missouri Peace Officers Association on October 19, 1950. His friends know him as the "youngest old man" in police work. During his service as chief of police at Hannibal he established many new techniques, adapted radio communication to the use of his department, and was instrumental in sending two members of his agency to the FBI National Academy.

Despite the fact that he has been eligible for retirement for some time, Lieutenant Featherstone prefers active police work to a life of ease.

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Cited for Heroism

On the night of March 12, 1950, Lt. John M. Cleary, Buffalo, N. Y., Police Department, and his companion officer were on duty in a patrol car. They were cruising in a semi-industrial section when Lieutenant Cleary received instructions to call his headquarters. They drove to a nearby call box and while Lieutenant Cleary was talking to his headquarters an accident occurred near the intersection.

This accident involved a 15-ton United States mail truck and two passenger cars. The mail truck allegedly swerved to avoid hitting the first passenger car which had apparently cut the truck short. The truck skidded on a section of icy pavement and hit the second passenger car head-on. The car was pushed along the street and finally came to a stop when it was jammed against the standing police vehicle. Fire broke



Lt. John M. Cleary.

out immediately as a result of gasoline spillage and an electrical short circuit.

The crash and fire received Lieutenant Cleary's attention. He immediately sensed the danger to which the occupants of the passenger car were exposed and managed to get the dazed victims from their overturned and burning car. The lives of a man and his wife were saved by the quick thinking and direct action of this police officer. In the true tradition of his chosen profession, Lieutenant Cleary risked his own life in order to save the lives of others.

Lieutenant Cleary was cited for this heroic deed on November 23, 1950, on the occasion of the Annual Buffalo Policemen's Ball. Amid the festivities he was awarded the Kneeland Wilkes Memorial Plaque, an annual award for outstanding police action, presented by the family of the late Kneeland Wilkes, former Buffalo city official.

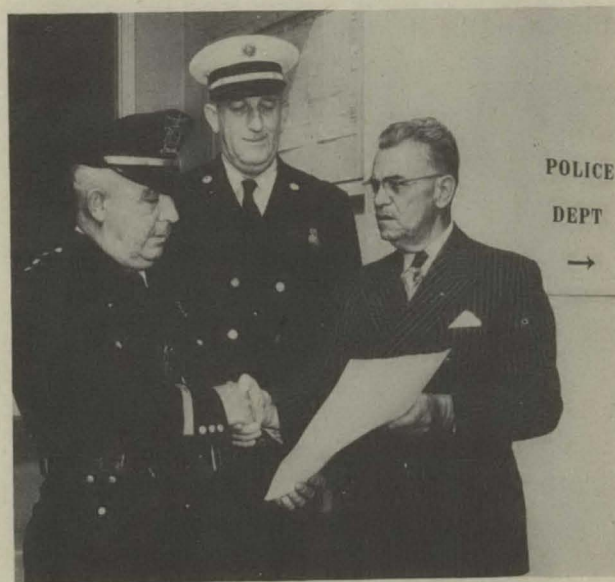
Lieutenant Cleary has been a law enforcement officer with the Buffalo Police Department since 1937. He has held the rank of lieutenant for 6 years. During World War II, he served with the United States Navy. He is a graduate of Canisius College, Buffalo, N. Y., and has completed several courses at Georgetown University Law School, Washington, D. C. Lieutenant Cleary completed the fortieth session of the FBI National Academy and serves on the faculty of the Buffalo Police Academy. He is married and the father of two children.

One-Chief Town

On August 1, 1925, the 800 people of San Carlos, Calif., chose Edward J. Wheeler to serve as the sole member of their local law enforcement agency and appointed him the first chief of police of that city. In addition, he also carried the title of fire chief for many years.

Today, San Carlos is a flourishing suburban residential and manufacturing city of 14,500 population. For 25 years there has been no one other than Edward J. Wheeler in the position of chief of police. The "one and only" chief of San Carlos was honored on his twenty-fifth anniversary on August 1, 1950, by police and civic officials. He was presented with a commemorative scroll by Mayor Edward Burton, and the members of his 12-man police department presented him with a suitably engraved gold wrist watch. Chief Wheeler seeks to apply the most efficient methods possible in meeting the law enforcement problems of his city, which is located on the busy arterial, El Camino Real.

The training of San Carlos Police Department personnel goes forward continuously and its representatives are sent to the FBI training schools held in the area. The many friends of Chief Wheeler join city officials in wishing him every success in the administration of his department.



Chief of Police Edward J. Wheeler is presented a scroll by Mayor Edward R. Burton, commemorating his twenty-fifth anniversary on the San Carlos Police Department. Fire Chief Lyle G. Clark looks on.

CRIME PREVENTION

City and County Officers Join in Youth Program

Cooperation

Law enforcement is not the only cooperative effort of Chief of Police Raymond Webb, Duncan, Okla., and Sheriff Finis Martin of the Stephens County, Okla., sheriff's office. They are also participating in the sponsorship of an up-to-date, active junior police organization which has reduced juvenile delinquency and juvenile crime to a noteworthy degree.

Origin of the Junior Police

On June 10, 1949, Raymond Webb was appointed chief of police at Duncan, Stephens County, Okla., an oil town of approximately 18,000 population, located in the southern part of the State. As one of the first steps in setting up a modern law enforcement organization, Chief Webb outlined the plans for a junior police organization to combat juvenile delinquency. A board of directors was selected by contacting civic organizations in the city of Duncan and requesting them to appoint members to serve as directors. From this group four men were chosen as the directors' committee. It was composed of Chief Webb as chairman, Sheriff Martin, the mayor, and the county judge.

In April of 1950, the secretary of the State of Oklahoma issued a certificate of incorporation for the Duncan Junior Police, establishing the club as a corporation under the laws of the State of Oklahoma. Membership in the Junior Police Club is open to any boy or girl between the ages of 8 and 15, inclusive. Application forms are obtained from the police department. The form includes a pledge of good citizenship. The prospective member is required to obtain his parents' signature on the application as a means of securing their approval and their cooperation in the project.

At the present time, there are a total of 395 members in the club. Recently, the Exchange Club of Duncan, a civic organization, deeded to the Junior Police Club a one-story building, 40 by 80 feet, located near the town square, for purposes of recreation and to provide a place where meetings can

be held. Club members sold automobile tag emblems advertising the city of Duncan and raised enough money to purchase baseball uniforms for 35 players. A 30-passenger bus was obtained for the junior police organization through a city official. Drug stores in the city of Duncan donated equipment for all types of indoor games and regularly donate reading material. Ping-pong tables and related equipment, a combination radio and record player, with a large selection of records, and woodworking sets complete the recreational equipment for the indoor activities of the club.

Maintenance

All utility bills are paid by the city of Duncan, authorized by a vote of the city commission, which has also passed an ordinance authorizing the purchase of all necessary outdoor equipment for playing football, baseball, and other games in the city parks. Peanut and chewing gum vending machines in the city of Duncan also provide a monthly income for the club. The club has also sponsored



Chief Raymond Webb.



Sheriff Finis Martin.

road shows of Hansel and Gretel and Snow White and the Seven Dwarfs to earn additional money, and at the present time, has several hundred dollars in its bank account.

Activities

The Junior Police Club also has a musical entertainment troupe, consisting of a quartet, a chorus, and several youngsters who play instruments. This troupe furnishes entertainment to civic clubs and hospitals in Duncan and Stephens County.

Meetings are held each Saturday through the school year. Business sessions are held and guest speakers give instructions on good citizenship and other topics of value to youngsters. Supervised entertainment then follows for the balance of the day.

During the summer months, the assistant football coach at Duncan is a full-time paid supervisor. He conducts playground activities for all members of the club 5 days a week, in the city parks at Duncan. The baseball team, which is composed of boys under 12 years of age, is coached by the high school baseball coach. During the 1950 season, this team reached the State finals of the midget baseball tournament. The coaches have learned that their activities with the youngsters in this connection give them an excellent opportunity to develop athletes for the high schools. The club has entered its members in the Oklahoma Association of the Amateur Athletic Union, which has a program for the development of physical fitness, and also participates in the Oklahoma AAU Junior Olympics.

Merchants of Duncan have donated several new lawn mowers to the club so that members who do not own them may borrow them from the club and earn spending money for themselves by mowing lawns. The people of Duncan have been encouraged through speeches and newspaper publicity, whenever they have work which could be done by a youngster, to contact either the chief of police or the sheriff, who, in turn, will furnish a member of this organization.

Each Saturday morning, the Duncan theaters furnish free admission to their current shows for all members of this organization, upon presentation of their membership badges.

In August of 1949, shortly after the club was organized, the merchants of Duncan donated \$1,400 to pay the expenses of 110 members, who might otherwise have been unable to go, for a trip by chartered busses to visit Carlsbad Caverns in New Mexico, as well as other points of interest. In addition to the chartered busses, Chief Webb and Sheriff Martin, together with their wives, also took their automobiles and three youngsters each, and paid their expenses.

Members of the Junior Police Club, under the sponsorship of the Kiwanis Club, direct traffic around the schools, and are also used on special occasions.

Results

For the past 2 years, there has been no property destruction or damage occurring on Halloween night, which is quite unusual, and has caused much favorable comment by the merchants.

The cost of planned and organized recreation and sports, and the constant teachings of American ideals and good citizenship is a small price to pay to prevent juvenile delinquency, according to Chief Webb.

As a proof of the worth of the organization, since June 10, 1950, only one juvenile in Duncan and vicinity has given any trouble. This youth was sent to the State Training School for Boys, where he had previously served a sentence.

The success of the Duncan Junior Police organization has demonstrated to its sponsors what can be accomplished when law enforcement officers take a leading part in community youth activities. They are also convinced as to the value of close cooperation of local law enforcement agencies in this program devoted to the prevention of juvenile crime.

CRIME PREVENTION

El Paso

Combats Juvenile Delinquency

Introduction

The city of El Paso has an approximate population of 150,000, while the population of the rural or county area is in excess of 197,000. The city and county of El Paso are geographically situated in the extreme southwestern corner of the State of Texas, directly north of the Republic of Mexico, across the shallow Rio Grande River. Opposite El Paso, Tex., is the large Mexican metropolis of Juarez, Chihuahua, Mexico, the gateway to points into the interior of Mexico. Juarez, Chihuahua, has a population in excess of 130,000.

Law-enforcement authorities dealing with the crime situation in this area have been meeting a juvenile crime problem which has existed for many years. The juvenile delinquent has been a continuous source of concern to law-enforcement agencies and others interested in the prevention and suppression of such criminal activity. Robbery by assault, burglary, stabbings, car pilfering, purse snatching, and shoplifting are a few of the numerous types of offenses committed by juvenile delinquents in the country.

Juvenile Crime Increase

A probation office was established at El Paso in 1905, and records were kept after 1928. The office personnel was increased to three in 1941. Following the close of World War II, interested officials were alarmed to note an increase in crimes committed by juvenile delinquents, including several homicides. This was brought to the attention of the people of El Paso, Tex., most forcefully by the local press, which publicized the gang fights and criminal activities of the numerous juvenile gangs.

Members of the various gangs often could be identified by a tattoo on the back of the hand, usually between the thumb and the index finger. The groups were known as "the 711 Gang," "the O. K. Gang," "the Old Fort Bliss Gang," and "the Lucky 13 Gang." The gangs gradually increased their

activities in El Paso and were known to be preying on military personnel assigned at El Paso, Tex. Fights, near riots, and stabbings followed. Gang rivalry between school children became so acute that on numerous occasions, football players, after leaving the dressing room at the conclusion of a football game, were forced to use football shoes and similar articles as protection on leaving the athletic fields.

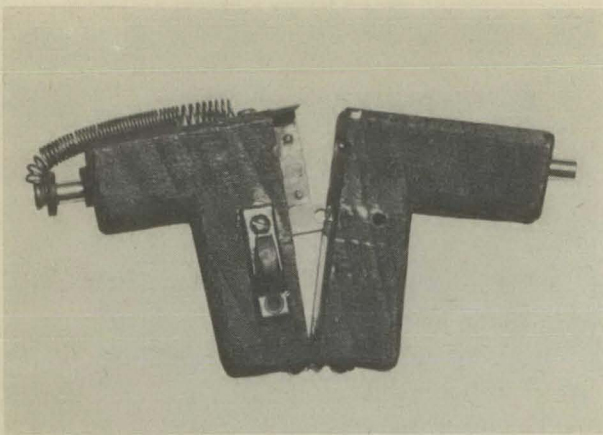
Many of the gangs came from the south section of El Paso. As a result of the activities of the South El Paso groups, boys in the north and northeast portion of El Paso organized gangs which were known as "the Dukes," "the Kings," "the Counts," "the Barons" and "the Duchesses." The latter gang was made up of girl friends of the male gang members, and acted more or less as an auxiliary.

During the past few years, law enforcement authorities were handicapped by insufficient personnel to cope with the situation, and by the fact that El Paso and the pertinent area lacked adequate recreational facilities.

Local law enforcement agencies, assisted by civic-minded citizens and civic-minded service clubs, as well as religious groups, began a cam-



Chief of Police W. C. Woolverton.



Open view of the spring-type "zip gun."

paign to remedy this situation and to obtain a new juvenile home for El Paso County. Numerous recreational activities designed to cope with this situation were inaugurated. It was fully realized that adequate detention facilities must be provided for juvenile delinquents committed to detention.

The "Zip Gun"

In the meantime, the activities of the gangs continued. Most of the members armed themselves with knives, blackjacks, brass knuckles, and a weapon known as the "zip gun." The "zip gun" usually is made out of wood with a barrel made of a piece of radio aerial tubing of a size to accommodate a .22 caliber cartridge. The firing pin is made with a nail or similar device, with a spring or rubber band, which is drawn back and released, allowing the cartridge to fire.

The use of these weapons increased, resulting in numerous serious injuries. On August 10, 1950, five youths in a car drove by a drug store in the 900 Block of Missouri Street, El Paso, Tex., and in gangland style released a fusillade of shots, killing a 19-year-old youth who was scheduled to report the following day for service in the United States Navy.

Chief of Police W. C. Woolverton, who has seen 35 years of service with the El Paso Police Department, in conjunction with L. L. Mobley, El Paso Probation Officer, was successful, through cooperation of local newspapers, in bringing this situation squarely in front of the public. The parents of juvenile delinquents who were known to be members of these marauding gangs were cited before a grand jury. This resulted in practically complete disintegration of the gangs in the north

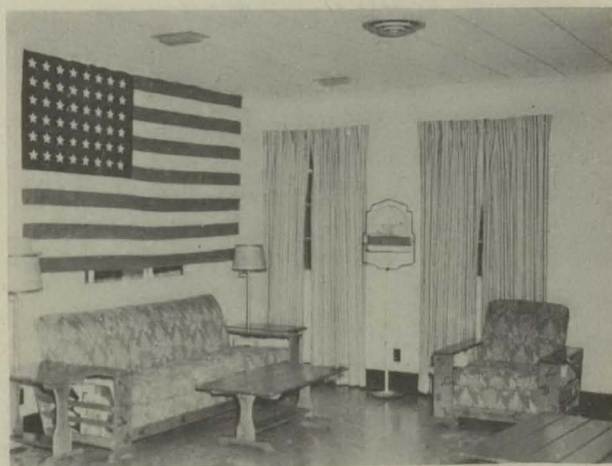
and northeast portions of El Paso. The juveniles responsible for the homicide, through excellent police work, were identified and subsequently indicted by the grand jury and are presently awaiting trial.

New Detention Home

Chief Woolverton and Chief Probation Officer Mobley realized a long ambition when the dedication of the new, modern juvenile detention home at El Paso, Tex., on May 22, 1950. Additional personnel was furnished the El Paso County Probation Officer to assist him in the administration of his duties and the operation of the new detention home.

Law-enforcement authorities and public-spirited citizens alike are proud of their El Paso Detention Home, and they are even more proud of the success of their efforts in decreasing juvenile delinquency in this area. Steps are being taken to obtain additional recreational facilities at El Paso, Tex. One of the projects along this line is the construction of lighting facilities on playgrounds, including those at the elementary schools, which are opened nightly, weather permitting, for juveniles to make use of the playground facilities. Another step taken by civic-minded citizens was the organization of a committee, whose purpose it is to combat juvenile delinquency.

The outstanding efforts of the El Paso Probation Office, the El Paso Police Department and the El Paso Sheriff's Office have resulted in a decline of crimes committed by juvenile delinquents, as well as a decline of the activities of the South El Paso juvenile gangs.



View of a portion of the new El Paso Detention Home.

MISCELLANEOUS

Enforcement of Law in Athens, Ga.

Police Department

Chief of Police Clarence O. Roberts and the citizens of Athens, Ga., are proud of their remodeled and enlarged police headquarters, and of the many other recent improvements in the modern quarters on the lower floor of the city hall. Interview rooms are available and a recreation room is provided for use of the men. Radio equipment gives increased efficiency.

Clarence Roberts began his law enforcement career in 1930. Promoted through the ranks, he was made chief in 1948. Noted for his ability to remember facts, names, and faces, Chief Roberts keeps well informed and takes close personal interest in matters coming within his jurisdiction. He has gained a reputation for bringing the guilty before the bar of justice, but he also has guided many youthful offenders along the road of rehabilitation and useful living.

Heading a force of 34 men, Chief Roberts is a strong believer in police training. He has sponsored both generalized and special schools for his men, one of whom, Capt. Robert Eidam, is a graduate of the FBI National Academy.

Chief Roberts has taken the initiative in fulfilling speaking engagements, stressing the causes and prevention of crime and the duty which rests upon citizens. He has brought worth-while discussions to attention at police conferences.

An excellent records system, established by Chief Roberts in the department, has proved its worth over and over in the war on crime. The Detective Department composed of Detective Lieutenant Earl E. Hardy and Detective Walter E. McKinnon, was organized in 1948. It pulls as a team with the uniformed division and remarkable statistics have resulted.

Statistics

In 1948, 100 percent of the cases handled by the police and bound over to State courts resulted in convictions, 90 percent on pleas of guilty. In 1949 100 percent convictions were again obtained,

92 percent the result of guilty pleas. The same impressive record was continued in 1950.

During 1949, fines in police cases handled in State courts amounted to \$14,140. One life sentence was imposed and other sentences totaled a minimum of 128 years.

In 1948 property valued at \$54,360.99 was stolen. Recovery value was \$46,952.48. In 1949, thefts were decreased to a total value of \$29,590.65 with \$26,511.70 recovery value.

There was no traffic fatality within the city in 1949.

The total operating expense for the department amounted to \$105,279.62. As to income, \$51,493 was the amount of fines in Recorder's Court, \$4,197 represented the value of labor performed by city prisoners, and parking meters brought in \$58,127.88.

Burglaries

Two safe burglaries were reported on March 19, 1949. The loss was \$187.90 at one place and \$2,146.21, plus personal property stolen from an adjoining warehouse and fertilizer company. Detectives searched in vain for latent fingerprints and other clues.



Chief Clarence O. Roberts.

On March 29, 1949, Traffic Officer E. H. Lampkin recognized one of two men in a 1937 grey Ford as a man wanted by the sheriff's office. Officer Lampkin arrested the man. He noted the name of the driver, his description, and the description of the car. On the basis of this information Detective Lieutenant Hardy, Detective McKinnon, and Georgia Bureau of Investigation Investigator Jim D. Haralson found that the suspect had purchased the car with 19 new \$10 bills with consecutive serial numbers and one old \$10 bill. These were identified as bills which had come from the Federal Reserve Bank in Atlanta through the National Bank of Athens to the safe which had been burglarized in the warehouse on March 19.

The suspect was arrested and found to have on his person additional bills stolen in the course of the burglary. The subject was tried, convicted, and sentenced to a term of 8 to 10 years in prison.

The energetic and progressive attitude of the Athens Police Department has resulted in increasingly efficient law enforcement in the community.

Reno Headquarters

A new police and municipal court building in Reno, Nev., was dedicated during January 1950, constructed at a total cost of \$570,000. Facilities are provided for efficient work of a total personnel of 87, and for the handling of 150 prisoners.

The glass-doored entrance leads to an information desk and switchboard on the left, and the municipal court clerk's office on the right. From the lobby, there is access to the private offices of the Chief of Police L. R. Greeson, assistant chief, captain of detectives, captain of traffic, captain of patrol, juvenile division, identification bureau, the judge's chambers, and the municipal court.

Reinforced with steel, the building consists of a basement and two stories, and is completely air conditioned. The basement houses the heating and air-conditioning equipment, a four-position 25-yard firing range and loading room, radio repair shop, auxiliary lighting equipment, laundry, car-servicing pit, gas pump, wash rack, emergency holding cell, and a well-equipped gymnasium.

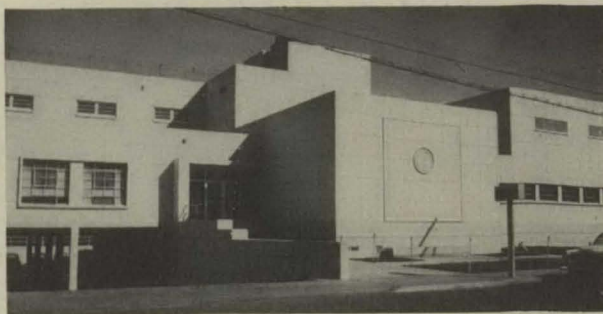
On the main floor, there is maintained a centrally located gun vault. This floor also accommodates a mimeograph room where all report forms are printed, a large classroom, a library, two interview rooms, laboratory, dispatching room, teletype room, squad room, two dark rooms, and two large vaults for storage of evidence. A

locker and shower room on this floor are connected with the gymnasium by a spiral stair.

The jail, located on the second floor, may be reached by stair or elevator. Officers bringing prisoners by car use a ramp to the basement entrance. The ramp is heated to eliminate ice in the winter, and the basement doors are operated by a treadle which is controlled by the car wheel when a vehicle is driven up to the basement elevator entrance. The elevator is key-controlled, and within the elevator is a barred compartment providing safety to the officers handling prisoners. Entry to the jail, both from the elevator and by stair, is made through barred, electrically controlled doors, further protected by bullet-proof glass.

The jail provides segregation for women, juveniles, and other prisoners. Separate quarters are provided for prisoners taken into custody on charges of intoxication. Padded cells for both men and women are provided. The jail is so constructed that service to water, plumbing, lights, and so forth, can be made without entering the cells, and each cell has a drain in the center of the floor so that the entire jail portion can be readily flushed and cleaned. The jail furniture is constructed of welded steel, and the legs of tables and benches are embedded 8 inches in concrete. The men's portion of the jail is easily observed from a catwalk over the entire cell block. An exercise deck, surrounded by a steel fence, topped with barbed wire, is located on the roof of the building.

Jail clothes are laundered in the basement, and a live steam sterilizer is provided for mattresses and blankets. There is a shower room for prisoners entering the jail, with soap and water controls on the outside. Meals are cooked in a modern-equipped kitchen, and an emergency treatment room is equipped for use by the city doctor in treating prisoners.



Main entrance of police building, Reno, Nev.

MISCELLANEOUS

From its inception less than 50 years ago, the city of Richmond, Calif., has grown to be a thriving metropolis with a population of approximately 100,000 persons. Its rapid growth in the early period of World War II was even more phenomenal, for during that time the population jumped from approximately 23,000 to its present figure.

It was not until the city charter of Richmond was adopted in 1909 that a police department, as such, officially came into being. Before that time, law enforcement was handled by a constable, a night watchman, and a marshal, who also carried the responsibilities of superintendent of streets, tax collector, and poundmaster. The first uniformed police department consisted of seven men, including the first chief, J. P. Arnold.

The building which housed the Richmond Police Department for many years prior to December 13, 1949, reached its capacity almost immediately as the community began to expand from the influx of war workers. It was soon necessary to move parts of the department into neighboring frame structures and to build a brick addition to provide badly needed additional jail facilities.

Soon after the end of the war the people of Richmond, recognizing a progressive city's civic obligation, approved a bond issue of nearly \$4,000,000 to finance the construction of a new civic center as a memorial to Richmond's war dead. Included in the civic center is a three-story Hall of Justice, the cost of which was approximately \$900,000.

On December 13, 1949, the police department moved into its new quarters in the Hall of Justice. With a complement of 141 men, including Chief Ernest Phipps, this department is one of the most modern in the country both from the standpoint of its housing and its personnel as well as its equipment.

The department is divided into six divisions. The head of each division is directly responsible to Chief Phipps. They are known as the Patrol Division, Inspectors Bureau, Records and Service Division, Special (Vice) Services Division, Juvenile (Crime Prevention) Division, and Traffic

Richmond Police Department Grows With the Times

Division. One additional patrolman is assigned as personnel officer and is directly under the chief.

The housing of the department is most modern. The emphasis is upon light, air, and room. The surroundings are conducive to greater efficiency in all phases of police work. The large windows, the ultramodern woodwork and furniture, the pastel colors of the walls, all lend dignity to the building and do away with much of the grimness which tends to surround the activities of law enforcement.

In the selection of its personnel, this department has set up certain standards which are designed to weed out those applicants who are not basically suited to the profession of law enforcement. Once an applicant is sworn in he is given complete training in the fundamentals of police work. Thereafter he attends regular training schools which are given for all personnel within the department. This training is continuous and covers, among many others, such highly important subjects as the laws of arrest, public relations, procedure for handling juveniles, court and inquest procedure, and disaster and traffic enforcement. In addition to the schools maintained by National Academy graduates within the department, regular schools in which the FBI assists have been provided. All of this training has paid splendid dividends in winning the confidence and support of the people of Richmond.



New Richmond Police Department.

Small Department Modernized

Chief of Police Floyd E. Davis and the seven men in his department are demonstrating to the citizens of Bennettsville, S. C., and to neighboring towns and counties that a small police department can utilize modern methods of law enforcement and scientific crime detection quite as advantageously as do larger departments. A definite sense of efficiency, orderliness, and cleanliness is the first impression of a police department visitor.

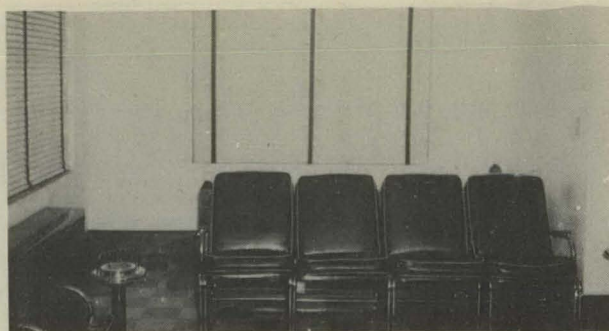
When Floyd Davis arrived in Bennettsville, in January 1948, from Myrtle Beach, S. C., where he had served as chief of police for 8 years, he began to work toward the goal of a new building to house the department. A desk in the hall of the Marlboro County courthouse, a telephone, a spindle file, and one patrol car formed a good portion of the department's physical equipment.

In the latter part of 1949 the police department moved into its new quarters. Chief Davis, in the meantime, had obtained a second patrol car and a three-wheel service car. The patrol vehicles were equipped with two-way radios. The radio at headquarters was connected with the one at the Marlboro County sheriff's office, allowing for close communication between the two departments.

A young woman was employed to serve as receptionist, radio operator, stenographer, and record clerk during the day, thus relieving an officer for outside work. During the evening and night hours such work is handled by the night sergeant.



*Chief of Police Floyd E. Davis, Bennettsville, S. C.,
Police Department.*



Reception room, Bennettsville, S. C., Police Department.

The chief's office and the sergeant's office are in the rear of the reception room. Both are equipped with modern furniture. The sergeant's office also serves as a record room.

Records

Chief Davis has a complete filing system, and he has found that the value of these files outweighs by far the time required to keep them. There are, he said, about 650 bicycles in Bennettsville. The licenses for these bicycles are filed according to license number, frame number, and according to owner's name. In addition, a stolen and lost property file, traffic ticket file, complaint file, automobile accident file, and fingerprint and arrest file are maintained. Chief Davis requires that each man in his department make out a complete daily report reflecting his activities and whereabouts during hours on duty.

Equipment

In the downstairs portion of the building there is a shower room with individual locker space. Much of the equipment in this part of the building has been made from scrap material and cost the city very little. An adjustable fingerprinting stand was made from a piece of tile fastened to a board mounted, by means of a floor flange, to a piece of iron pipe 21½ feet long. A second piece of pipe 6 inches long and large enough to receive the first has been mounted on a table by means of another floor flange. A hole bored in the table under the short piece of pipe and a locking nut in the side allows this stand to be adjusted for fingerprinting an individual of any height. A copying stand with adjustable fluorescent lights, used in conjunction with a good quality camera in photographing documents, can be folded against the wall when not in use.

A photographic darkroom has been built downstairs. The majority of the equipment is Chief Davis' personal property. The department, however, has been furnished with a complete portable fingerprint dusting kit and fingerprint camera.

Communications System

Chief Davis is alert to improve the efficiency of his department in combating crime. He is presently installing an intercommunication system which will provide contact with headquarters. In addition it will act as a monitor from headquarters on spots where trouble may be expected. Chief Davis is now installing each of the 10 outlets to the intercom system at strategic places in town, such as back lots and warehouse areas.

The chief is also converting a reliable 3¼ by 4¼ camera into a mugging camera, saving Bennettsville the cost of a new camera, yet providing the department with a convenient, fast means of photographing subjects.

Chief Davis is a graduate of the twenty-first session (1943) of the FBI National Academy.

Before going to Myrtle Beach, S. C., Chief Davis served as head of the department at Chesterfield, S. C., for 7 years. During 17 years in law-enforcement work he has continually been on the alert for pointers to improve the efficiency of small police departments.

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Retraining Session Canceled

In view of the critical situation which our country is presently facing, it has been decided to cancel the Retraining Session of the FBI National Academy Associates, originally scheduled for September 24 through 28, 1951. Also considered were the possibility of problems of transportation, the likelihood of limited hotel and housing facilities in Washington due to the increased preparedness program, and the fact that many graduates of the Academy may be going into the armed forces or will be in departments which are undermanned because of the loss of personnel.

Another determining factor is the tremendous increase in the work of the FBI which places a priority demand upon it and which would not logically permit the time required for the holding of the retraining session.

Latent Evidence Link in Murder

The body of a socially prominent resident of Charlotte, N. C., was found in her home one morning. Death had resulted from a wound inflicted at close range by the blast from a .12-gauge shotgun.

A second body, that of the butler, was found in his quarters on the grounds. The man had been severely beaten and his throat had been cut.

The efficient investigation by detectives of the Charlotte Police Department and Chief Frank N. Littlejohn quickly developed a logical suspect, who was a former butler.

In the course of a thorough crime scene search, Ed Pierczynski, identification officer of the Charlotte Police Department, found and lifted a latent fingerprint from the lamp shade on a bed lamp which the murderer had hit inadvertently during his struggle with the victim. Lt. John H. Pierczynski, also an identification officer, later compared the latent fingerprint and identified it as one of the fingerprints of the suspect butler, his fingerprints were previously on file with the Charlotte Police Department.

As a result of exhaustive efforts on the part of the entire Charlotte Police Department, the subject was located and apprehended in Charlotte, N. C., one day after the murder was discovered. Confronted with the evidence against him, made conclusive with the identification of his fingerprint on the lamp shade, the subject confessed to the murder.

He was tried in superior court in Mecklenburg County, was sentenced to death, and was subsequently executed.

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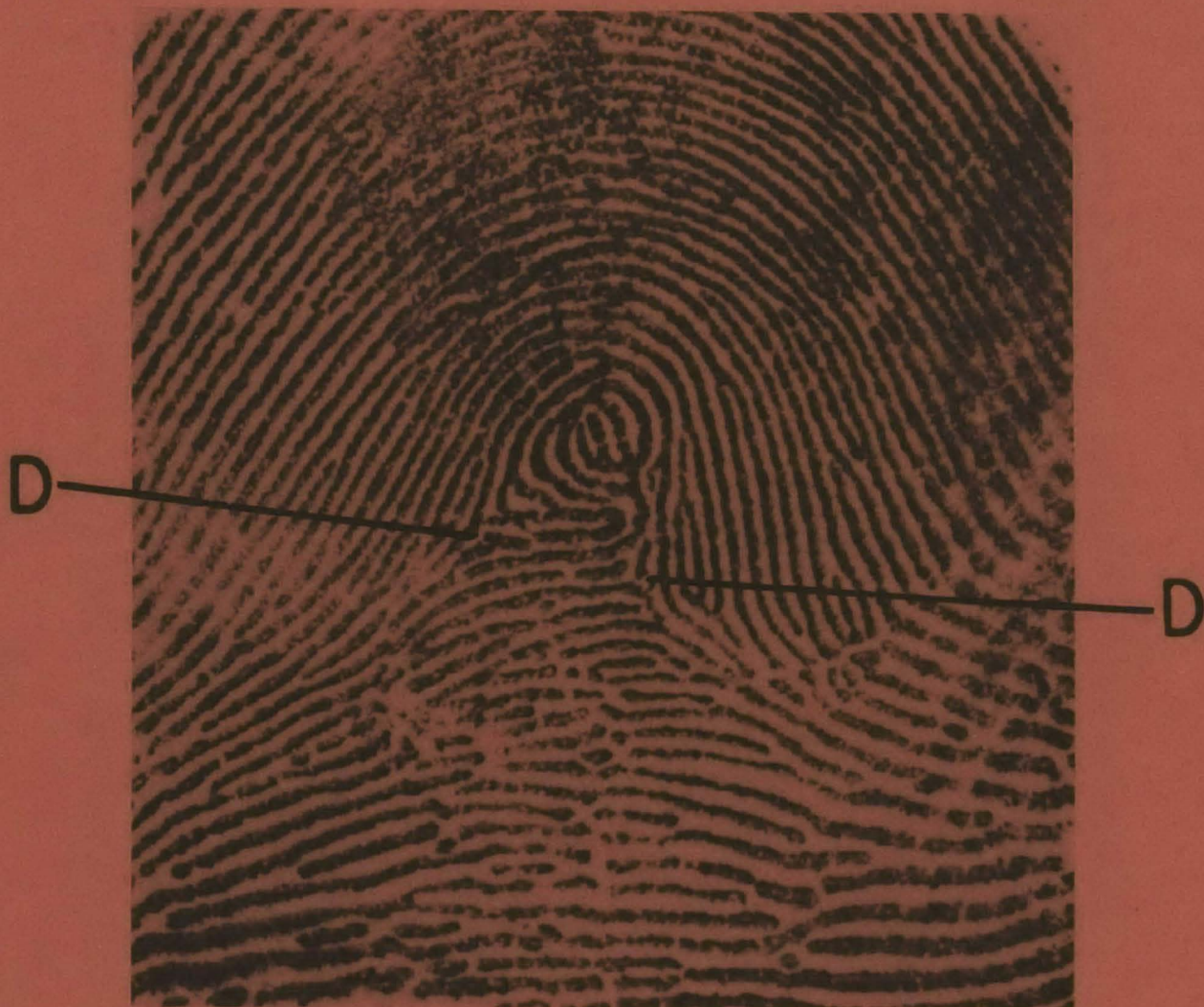
Deceased Witness

An unknown man who had died in Linden, Calif., on December 2, 1950, was fingerprinted and his prints submitted to the Identification Division of the FBI by the sheriff's office, Stockton, Calif.

Search of the files revealed the identity of the unknown who had been fingerprinted on only one other occasion. There was, moreover, a wanted notice on record showing that location of the man was desired by the office of the attorney general, Pierre, S. Dak., as a material witness in a murder case.

Questionable Pattern

FINGERPRINTS



The fingerprint pattern presented this month is interesting due to the odd formation of the ridges. In the Identification Division of the Federal Bureau of Investigation, this pattern

is classified as a whorl. Since it contains two deltas (D), two separate loop formations and two separate and distinct sets of shoulders, it is "typed" as a double loop.