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FBI LAW ENFORCEMENT BULLETIN

1945

September



HEADQUARTERS OF THE FBI,
DEPARTMENT OF JUSTICE BUILDING,
WASHINGTON, D.C.

Vol. 14

No. 9

Federal Bureau Of Investigation
United States Department Of Justice
John Edgar Hoover, Director

The Federal Bureau of Investigation, United States Department of Justice, is charged with the duty of investigating violations of the laws of the United States and collecting evidence in cases in which the United States is or may be a party in interest.

The following list indicates some of the major violations over which the Bureau has investigative jurisdiction:-

- Espionage, Sabotage, Violations of the Neutrality Act and similar matters related to Internal Security
- National Motor Vehicle Theft Act
- Interstate transportation of stolen property valued at \$5,000 or more
- National Bankruptcy Act
- Interstate flight to avoid prosecution or testifying in certain cases
- White Slave Traffic Act
- Impersonation of Government Officials
- Larceny of Goods in Interstate Commerce
- Killing or Assaulting Federal Officer
- Cases involving transportation in interstate or foreign commerce of any persons who have been kidnaped
- Extortion cases where mail is used to transmit threats of violence to persons or property; also cases where interstate commerce is an element and the means of communication is by telegram, telephone or other carrier
- Theft, Embezzlement or Illegal Possession of Government Property
- Antitrust Laws
- Robbery of National Banks, insured banks of the Federal Deposit Insurance Corporation, Member Banks of the Federal Reserve System and Federal Loan and Savings Institutions
- National Bank and Federal Reserve Act Violations, such as embezzlement, abstraction or misapplication of funds
- Crimes on any kind of Government reservation, including Indian Reservations or in any Government building or other Government property
- Neutrality violations, including the shipment of arms to friendly nations
- Frauds against the Government
- Crimes in connection with the Federal Penal and Correctional Institutions
- Perjury, embezzlement, or bribery in connection with Federal Statutes or officials
- Crimes on the high seas
- Federal Anti-Racketeering Statute
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Servicemen's Dependents Allowance Act of 1942

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Law enforcement officials possessing information concerning violations over which the Bureau has investigative jurisdiction are requested to promptly forward the same to the Special Agent in Charge of the nearest field division of the Federal Bureau of Investigation, United States Department of Justice. The address of each field division of this Bureau appears on the inside back cover of this bulletin. Government Rate Collect telegrams or telephone calls will be accepted if information indicates that immediate action is necessary.

FBI
LAW ENFORCEMENT
BULLETIN

VOL. 14

SEPTEMBER 1945

No. 9

PUBLISHED BY THE
FEDERAL BUREAU OF INVESTIGATION
UNITED STATES DEPARTMENT OF JUSTICE
WASHINGTON, D. C.

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The FBI Law Enforcement Bulletin is issued monthly to law enforcement agencies throughout the United States. Much of the data appearing herein is of a confidential nature and its circulation should be restricted to law enforcement officers; therefore, material contained in this Bulletin may not be reprinted without prior authorization by the Federal Bureau of Investigation.

The FBI LAW ENFORCEMENT BULLETIN is published monthly by the Federal Bureau of Investigation, United States Department of Justice. Its material is compiled for the assistance of all Law Enforcement Officials and is a current catalogue of continuous reference for the Law Enforcement Officers of the Nation.

John Edgar Hoover, Director
Federal Bureau of Investigation
United States Department of Justice
Washington, D. C.

INTRODUCTION

"THE FIGURES SPEAK FOR THEMSELVES"

Neither the private citizen nor the law enforcement officer can afford to disregard the note of warning contained in the nationwide crime statistics for the first half of 1945. The 8.4 per cent over-all increase in lawlessness serves as an accurate yardstick for the future. It shows our society falling far short of its fullest potential. The statistics speak for themselves, and ostrich-like indifference toward them is not going to help. Now as never before we must face the future with realism.

Alarming also were the statistics compiled by the FBI concerning juvenile delinquency. Arrests of boys and girls under 21 increased 8 per cent during the first half of 1945 as compared with the same period of 1941, our last year of peacetime normalcy. Coupled with this was a 6.6 per cent rise over 1944. Of all persons arrested from January through June of this year, 21.4 per cent were too young to vote and 35.6 per cent were under 25. This latter group accounted for more than one half of all crimes against property.

The tide of lawlessness among youths continues to sweep along at full flood stage. Seventeen was the predominant age for all persons taken into custody. Arrests of boys under 21 increased 23.8 per cent for offenses against the person, which include homicide, rape and assault; 11.3 per cent, against property; and 12.6 per cent, against common decency. At the same time, arrests of girls in this same category rose 5.1 per cent for offenses against the person and 9.2 per cent against property.

Based on fingerprint cards received by the FBI, these juvenile delinquency figures are but a part of the crime picture. Statistics submitted by 392 cities with a total population of over 51 million afford an even more comprehensive view. Offenses for the first half of 1945 compared with the same 1944 period reflect the following increases: Murder and non-negligent homicide, 4.3 per cent; rape, 9 per cent; robbery, 10 per cent; aggravated assault, 11.3 per cent; burglary, 12.1 per cent; larceny, 7.9 per cent; and auto theft, 4.6 per cent.

With figures such as these confronting us, the terrible cost of indecision and inaction becomes self-evident. The juvenile delinquent will be the hardened criminal of tomorrow - unless we meet this challenge now. Each step must be carefully plotted. At a time like this, we cannot and must not take any chance of losing the fruits of peace here at home.

J. Edgar Hoover

TEN YEARS OF PROGRESS IN LAW ENFORCEMENT
ADDRESS OF
HONORABLE TOM C. CLARK
ATTORNEY GENERAL OF THE UNITED STATES
AT THE GRADUATION EXERCISES OF THE 29th SESSION
of the FBI NATIONAL ACADEMY
July 21, 1945

I sincerely feel that congratulations are in order. Every graduation of a class of the FBI National Academy is an important event and an occasion for congratulations. This occasion, however, is especially significant since it marks the Tenth Anniversary of the Academy. It was ten years ago this month, more particularly on July 29, 1935, that Director J. Edgar Hoover initiated the first session of the National Academy. Twenty-eight similar groups have already completed this course and we today are participating in the Twenty-ninth Graduation Exercises. I extend to you graduates my sincere felicitations on this occasion. You will long be remembered as the Tenth Anniversary Class.

The past decade has marked ten important years of progress in law enforcement. A large portion of this progress is attributable to the training afforded to local, county, and state law enforcement officers by the Federal Bureau of Investigation. I find it entirely appropriate therefore to extend congratulations not only to the graduates today, to the former graduates, and to the departments which have been represented here but also to the citizens of the United States who are the real beneficiaries of this program initiated because of the foresight and brilliant leadership of Director John Edgar Hoover.

This school is a fine thing in professionalizing law enforcement work, it promotes friendly cooperation between local, state, and federal enforcement agencies, it encourages high standards of ethics in police work, it provides greater safety for the American family and the American home, and it makes of common practice the constitutional concept of human rights and individual liberties. The Attorney General of the United States is frequently referred to as the principal law enforcement officer of the land. As the Attorney General I therefore entreat you to follow the teachings and the practices of your brother officers in the FBI in carrying out your responsibilities in your respective jurisdictions. It is good for our American people to know that in the Federal Bureau of Investigation they not only teach the need for the protection of the individual and the citizens in their enjoyment of democratic rights but also they "practice what they preach." It is good for the citizens of your home communities to know that you too are dedicated to the same high principles of protection and enforcement.

You have been trained as police executives and police instructors and through your leadership and training you will have in your respective communities the opportunity, and with that opportunity the responsibility, of continuing this progressive program of law enforcement. You have been trained as teachers but some of you are limited in experience as police

instructors. I am glad to tell you therefore that the FBI will be glad to accept your invitation and the invitation of any police chief to aid in the preparing of a program of training to suit the needs of the various departments and will also assist in the actual teaching program to the fullest extent desired. Quite properly then police schools in your own community may be looked upon as extension courses of the academy. Other extension courses are found in the regular conferences of law enforcement executives called into session twice each year in many sections of the country for the exchange of ideas and information dealing with our nation's security both in war time and in peace time. It is encouraging to note that on an average of 40,000 police executives and their aides assemble semi-annually with the Special Agents in Charge of the FBI Field Offices in this coordinating program. Here is another example of a free and friendly cooperation among the peace officers of all jurisdictions. There is no compulsion and there is no dictatorial program but there is a friendly cooperation in making plans and carrying them out in the democratic way. As a result of such plans and action, you have rendered and are rendering notable service to our nation in time of war. You have voluntarily cooperated in preventing any foreign-directed sabotage in the United States in World War II. You have maintained a constant vigil on the spy and subverter and during the furor of war you have kept your feet on the ground, you have avoided hysteria, and you have not violated the rights and civil liberties of the American citizens.

You have seen to it that our American way of life is protected here while our boys have gone over the seven seas to protect it from the lust of foreign foes.

The American concept of civil liberties guarantees certain prescribed rights to the individual and these rights are of paramount importance. The American concept of civil order places a paramount obligation on you to make certain the right of the public and of the individual is protected from the depredation of the criminal parasite. Both of these obligations must constantly be borne in mind and always receive the protection of your strong arm.

I feel sure that I sense the will of the American people that there be prompt and vigorous action taken within the law against those who maliciously and intentionally defraud the government of the United States. Particularly those who maliciously take advantage of their government, when it is struggling to wage war against vicious and desperate enemies, by cheating and defrauding our government should be thoroughly investigated and when the facts justify, promptly and vigorously prosecuted. I have called upon the Federal Bureau of Investigation to pursue these investigations when complaints of such violations are forwarded to the Office of the Attorney General and undoubtedly they will again enlist the assistance of the cooperating law enforcement agencies throughout the country in handling such investigations. The Department of Justice will make itself clear by its actions that war frauds wherever they are found are being punished and otherwise made unprofitable and hazardous.

I am glad to learn that in your course of training you have dealt extensively with the problems of crime prevention. Crime prevention is better than crime detection but in the course of your duties you will find that both are necessary. A large part of any crime prevention program naturally relates to the prevention and control of juvenile delinquency. During the war, particularly, there has been an increasing amount of juvenile delinquency or perhaps it would be more accurate to say that there have been during this period too many juvenile casualties on the moral and legal front. I am told that when the robot bombs first started falling on England one of the more effective ways of combating them was for a speedy fighter plane to overtake or intercept the bomb and by having the fighter plane's wings gently touch the wing of the robot bomb its direction would be changed and it would be deflected into a barren field instead of carrying destruction to the crowded city of London. Perhaps by analogy we might say that you as peace officers and every man who shall work under your supervision, even the patrolman on the beat, has a frequent opportunity by guidance, by advice, and by other deterring and constructive means to gently influence the direction and the activities of a wayward youth so that they may be deflected from the paths of destruction into constructive channels. Again I say I am glad to know that a substantial portion of your training program has been directed to this important problem in full recognition of the fact that crime prevention is better than crime detection.

You have been trained in the greatest laboratory, devoted exclusively to crime detection problems, in the world. You have studied fingerprinting in the institution where are located over 97,875,000 fingerprint cards, the world's largest collection of fingerprints. You have also learned that there are no panaceas and no formulas to answer all your problems. There have been given you no magician's wand and no magic word to serve as a substitute for hard work and good judgment, based on trained intelligence. Just as each fingerprint is different, so will you find each crime a different problem. Trained intelligence in the police department is the greatest assurance of safety to the citizens of the community. I sincerely wish that every citizen would realize his obligation to himself, his family and his community to make certain that the policeman's job is put on a career basis and kept that way, to see that the salaries and retirement benefits are sufficient to attract the highest type of recruits from the standpoint of character and intelligence, and then it should be made certain that the men who are carefully selected are adequately trained for their duties. This will insure a crime prevention and law enforcement program in each community of the highest type. It will also make certain that there is no demand from the public for a national police force. I see eye to eye with Mr. Hoover in this matter as well as in the fact that law enforcement in our democratic nation is and should be approximately 95% a local responsibility. The Federal jurisdiction is confined by constitutional limitations to such matters of broad Federal and national interest as interstate matters, bankruptcy frauds, tax frauds, acts which affect the national structure and national security, and the like, while the residue of power and jurisdiction rests with the States or with the counties and municipalities. I want to keep it that way. We in the Department of Justice shall preserve such constitutional provisions.

In carrying out our job of enforcing the law, we must not overlook the fact that the prosecutors and the judges are a part of the general structure of judicial administration. The prosecutors must be vigorous prosecutors of the law violator and, as a legal screen in selecting cases for prosecution, they must have the capacity to constantly bear in mind their responsibility to the communities in which they serve. The principal prosecutor in the Federal Government is the United States District Attorney and it is my wish that he be an outstanding advocate, a respected member of the Bar and that he reflect with ability and dignity upon his important position. I am proud of the record they have made during these trying times. It is, of course, obvious that our judges must be well equipped for their responsible positions. Even in exclusively Federal matters I shall try to keep local self-government in mind as a basic policy and shall entrust the major portion of the Federal prosecutive effort to the United States Attorneys in the various Federal Judicial Districts. To this end, I have alerted the United States Attorneys to the need for vigorous and relentless prosecution of black market violators. When the demands for war have created shortages in the necessities of life in such matters as food and shelter and clothing and the like, so as to make rationing necessary in order that we, as citizens, can share alike in the available supplies, then it is an obligation of great importance that those who cheat, either because of greed or for illegal profit, should be condemned by the patriotic and fair citizens of the land. The Department of Justice accepts its obligation in connection with such operations. We have already started doing something about them. Several major investigations are already underway. We shall act consistent with the facts and the law. I have already designated Assistant United States Attorney T. Vincent Quinn of the Eastern District of New York as a Special Assistant to the Attorney General to coordinate the various activities of the Department of Justice in combatting these black market operations. When I use the word "activities," I mean just that. The Department of Justice is already active in this field and will increase its activity to the fullest extent necessary.

Among the foundation stones of law enforcement are character, eternal vigilance, vigor and courage - all within the law. Perhaps the FBI motto, "Fidelity, Bravery, Integrity," summarizes these principles adequately. I submit these standards for your most favorable consideration. They are the standards of the United States Department of Justice. May they be yours.

ADDRESS OF
MR. THOMAS I. PARKINSON, PRESIDENT
EQUITABLE LIFE ASSURANCE SOCIETY
of the United States, at the
GRADUATION EXERCISES OF THE 29th SESSION
of the FBI NATIONAL ACADEMY
July 21, 1945

Mr. Hoover, Mr. Attorney General, Members of the Academy's Graduating Class, your friends and guests:

I have a feeling at this moment that I understand as never before that provision of our Constitution that no one shall be subjected to cruel and unusual punishment. Now, with an inspiring audience like this and with my training in law, and law teaching and in the business of insurance, in all of which activities talk is a precious thing, I am here surrounded with the FBI in its full strength and told that I have only 15 minutes. With my training, if it has produced any of the qualities that it should, I could use a half hour winding up and at least an hour running down.

My principal function, I think, is to congratulate you, the members of the graduating class; congratulate you upon having performed what was required of you in the FBI Training School, and even more congratulate you on the self-discipline, the personal inconvenience to which you have subjected yourselves in order to improve the standards of service in your particular part of assuring security to the people of this country. Your contribution will be the betterment of police work generally and the preservation and development of local government specifically.

I always like, wherever I am, to try to find something which I have in common with the rest of those present. Now we in the insurance business have a good deal in common with you in the police business. I do not mean this as that recent book entitled "The Rebellion of Leo McGuire" puts it. There we are told that when the burglary profession gets loose from your control, our insurance business thrives and prospers and when you get control of the burglary profession, our business falls off. No, that is ironic, to say the least. But we do have much in various phases of the insurance business which is in common with you, the police. We are, as Mr. Hoover just said, all interested in security, and are all delivering our particular kind of security to the welfare and peace of mind of the people of this country. Ours is economic security. There are limits to it. We do not assure the continuance of life. In the old days when the Equitable did business in China, a Chinese merchant is said to have rushed into the office one morning and demanded a hundred thousand dollars on his life, at once. When asked why such a hurry, he said that his competitors had hired gangsters to kill him and he knew that if the great American insurance company had one hundred thousand dollars on his life, it would not permit them to kill him. That is not the right idea of the security which we offer. You in the police business also offer security of different kinds. To the peace-loving, law-abiding citizen you offer the security which enables him to rest assured that he may live in liberty and freedom without

risk from violators of the law; but you offer another kind of security to the law breaker. You give him full security from the time the gates close on him until he is released or turned over to the undertaker. There are a few folks inhabiting various parts of this planet who would have economic security and be almost completely secure, I think they say, from the womb to the tomb. We do not offer that kind of economic security and we wonder whether it is consistent with the freedom and the liberty of human beings which your security helps our citizenry to enjoy. The question with respect to security is always whether we are prepared to pay the price.

In the economic field of insurance, people are prepared to use a large proportion of their current income to avoid risks which may not happen. Some are prepared to give up the freedom insured to us by our Constitution in this country in order to secure economic security. If we are to have that kind of security for the whole population, we must look out that we do not have the warden and the keeper outside the stone walls as well as in because the complete and absolute security to the individual through government means regimentation, means lack of initiative, means control in detail of every activity of any human being in relation to other human beings and that means, not a law enforcement organization, but a super-state police which has come to be known by the unpleasant name of Gestapo. We do not want to pay the price of giving up individual liberty and freedom to get that kind of security.

There are other ways in which you in police work and we in life insurance particularly have much in common. In my early days the dumb cop and the persistent life insurance agent were the butt of almost every jokester in the community. It is still somewhat true of both of us. There is one current just now of some patrol officers running down a country road and one of them saying to the driver, "Bill, I think we're on the wrong road." Said Bill, "I have known that for 20 minutes but we were making such good speed that I didn't like to turn around." Well, when you have my place you can tell a better one on the life insurance agent.

Both you and we have improved our position in the community and have done it by improving the standards of our service. We too claim by training and hard work to have elevated our life insurance service to something in the nature of a professional service to the community and I was glad to hear your Director use the same phrase to describe your improving standards of service. You occupy a very much different position today. You have more recognition. You have more appreciation, and I think it fair to say in the case of the FBI it has not only appreciation but real affection from the people of this country. You have more to do to deserve public confidence and appreciation; so have we. You must do it yourselves before anyone will do it for you; and that is what you have been doing. You have both been elevating your standards of service and you have been preparing yourselves to render those higher standards of service efficiently. You are, as a matter of fact, a much more important body in the administration of justice than we sometimes realize.

We spend a great deal of time in this country emphasizing judges, D.A.'s, juries; we sometimes forget that no judge, no forensic District Attorney and no jury can do a good job in the administration of criminal justice unless they have the facts--and the facts are yours. The facts in this complicated world of ours are fugitive, are difficult to get, to keep, to interpret and to use. That is your job and it is a most important job in the administration of justice. I do not mean merely proving the case against the defendant and getting him convicted because that is not the highest ideal of public law enforcement. It is the doing of justice and there the facts very often prevent injustice to the accused and in some cases prove the guilt of those who would otherwise escape.

As the Attorney General of Great Britain said at one time, "The Crown wins its case when justice is done even though it loses a conviction of a particular defendant." I hope that with the effort which you and others who have preceded you and who will follow you in this FBI Academy have made, there will be greater appreciation of your position in your communities, greater recognition, more of a career, less of political control, more of a professional service.

There is one other way in which you and we have similar troubles and opportunities. We, too, are bothered by the conflict of Federal and State laws as the Attorney General knows. You are much bothered by the difficulties of State and Federal jurisdictions in this country. Now, that is not accidental and that is not geographical. That is the deliberate result of the planning of a constitutional government which would secure liberty and freedom for people of this country.

The framers of our form of government had lived under tyranny. They devised a government, national and local, preserving to the local governments complete control over local affairs and giving to the national government control equally complete over national affairs. Our danger is that we may overemphasize national control and centralize too much of government in Washington. No one has put that better in years than the distinguished Chairman of the House Judiciary Committee, also a distinguished citizen and representative of the great State of Texas, Judge Sumners, when he said within the last few months that if we are to preserve liberty and avoid dictation, we must strengthen and maintain local government--that government which is close to the people; that government which is checked upon by the people from time to time and voted on occasionally as distinguished from what tends to develop in an overemphasis on centralized government. The expert in government has been well defined as an ordinary fellow far away from home.

But let me say just one thing in the few moments still available to me. I said that the division of government in this country, national and local, was not accidental. It is the golden thread which runs through all our constitutional system. It is the one thing we have in this government of ours which the great republics of the past which faded away and disappeared did not have. The one assurance that this country has of preserving permanently democratic and efficient government is the continuance

of a strong local government in those fields which are truly local and we all hope as the emergencies of the war pass away we shall return more and more of the powers of government to the localities which you police officers represent. We too can emphasize this morning, because of what you have done and are doing, the fact that under the leadership of the FBI you have been learning how to make local and national government function efficiently. You have been learning under the guidance and leadership of the FBI not merely how to do better police work on the facts of the particular case, but also to cooperate in those matters which get over State lines and on which your local authorities are limited. You have not only better qualifications for your local police work but you know now how to cooperate with the FBI in its national sphere.

Jerome Green has a story about cooperation which I cannot refrain from telling at this moment. A plot outside a municipality was developed into victory gardens and assigned to various people, and a prize was offered to the person who got the best harvest. Then came the harvest and an occasion like this with a presiding officer and a prize winner to whom the prize was awarded with the explanation that it was for what he and God had made that piece of land do during the recent season. The winner was asked if he had anything to say and he said he would like to say just a word--on this matter of cooperation he would just like to remind the folks that he wished they could have seen that piece of land when God alone was responsible for its condition.

Now this matter of cooperation is a two-way job. Both parties have to contribute to it if it is to be effected. I think we are greatly indebted to Mr. Hoover and to his organization in the Attorney General's department for a Federal Agency which has not sought to replace local government but has tried to supplement it, to improve it, to cooperate with it and to give all a better law enforcement and a better administration of justice in this country. That should be the goal of all federal and local officials. I have no doubt that you will go back to your communities and do something both in practice and in utterance to bring about more and more of that effective cooperation which is not a displacement of local government.

I have no more to say to you except, as we often say to the agents of our life insurance companies who have gone through similar courses of training and have demonstrated their capacity to do a little better than their fellows, you now have learned to do it better, you know the value of doing it better, it is there to be done, let us go and do it. Thank you.



HIT-AND-RUN ACCIDENT INVESTIGATIONS

Although the hit-and-run driver usually does not consider himself a criminal such as the burglar, robber or murderer, his offense frequently results in the needless loss of life or the permanent injury of innocent victims. Since many victims of such accidents would have survived had they been given first aid or rushed to a hospital immediately, this offense is considered by the public more wanton and dastardly than many other crimes. Then, too, in many hit-and-run accidents children or aged individuals are the victims. These facts have developed a definite public sentiment against every hit-and-run driver. Little sympathy can be had for any driver who has so little regard for the life of another person that he flees from the accident without offering aid or assistance to the injured victim.

Because of the importance of these cases, they should receive immediate and vigorous investigative attention. If a large proportion of such cases are not solved and the subjects are not successfully prosecuted for their violations, it is likely that the frequency of these cases will increase. The fear that comes over many motorists when they are involved in accidents may be sufficient to cause them to leave an accident scene, particularly if they think that there is little chance of being located. A vigorous and persistent policy of working such cases to a successful conclusion will prevent widespread hit-and-run driving epidemics.

The excellent records which some police departments have for solving hit-and-run accident cases are proof that with care and thorough investigations most of these cases can be successfully solved. The facts which are most likely to affect the successful conclusion of these cases are: the thoroughness with which accident scenes are searched for evidence; the proper care and analysis of all evidence found; and the perseverance of the investigating officers in applying interview, record and surveillance techniques.

Police have found that in many hit-and-run accident cases drivers flee from accident scenes because they had previously committed a crime or other violation and they are fearful that these infractions may be discovered in the course of accident investigations. Conditions such as the following may cause a motorist to leave an accident scene: operating a stolen vehicle, transporting stolen goods, escaping from a recently committed crime such as burglary or robbery, driving while under the influence of liquor, operating a motor vehicle which is not properly licensed, or operating a motor vehicle without a driver's license or while it is invalid.

Officers should be mindful of these facts while investigating hit-and-run accidents.

Experience indicates that not infrequently well respected citizens of a community may be guilty of hit-and-run driving. In such instances, the usual explanation given by the subject when he is located is that he became frightened and panicky when the accident occurred, and in his fright left the accident scene. It is reasonable to understand that a motorist might become excited and frightened under such circumstances, but at the same time it must be recognized that an obligation rests upon every motor vehicle operator to give aid and assistance to any party injured in an accident in which he is involved. Becoming frightened is not a justifiable excuse for leaving an accident scene.

Experienced officers know that in many cases hit-and-run drivers would have been cleared of most serious charges had they remained at the accident scene. Failure to comply with the law which requires them to stop and give necessary aid or assistance results in a much greater offense generally than that with which they might otherwise have been charged. Much might be accomplished in reducing the frequency of hit-and-run accidents if the public is thoroughly acquainted with this fact.

ELEMENTS

To conduct a thorough investigation in any case, traffic or criminal, officers must be well acquainted with the elements which constitute a violation for the particular case in question. Based on the law recommended by Act V of the Uniform Motor Vehicle Code which relates to the regulation of traffic on highways, the following elements must be proved to convict a motorist of hit-and-run driving:

1. Accused was operating a motor vehicle on a public street or highway.
2. Accused was involved in an accident resulting in:
 - (a) Death, or
 - (b) Personal Injury, or
 - (c) Property Damage.
3. Accused failed to adhere to the following requirements:
 - (a) Stop and return to scene of accident.
 - (b) Give name, address and vehicle license number.
 - (c) Produce driver's license upon request, if available.
 - (d) Render assistance to persons injured.
 - (e) Immediately notify appropriate law enforcement agency in the event of death or personal injury.
 - (f) Notify owner or leave name, address and statement of circumstances in conspicuous place in vehicle struck if it was unattended.
 - (g) Forward written report to appropriate law enforcement agency within 24 hours if property damage appears to be \$25 or more, unless the accused was physically disabled.

- (h) Take reasonable steps to notify owner of accused's name and address if damage to property other than a vehicle.

Since the laws of many states vary from the Uniform Motor Vehicle Code, officers should analyze the elements of their own city or state laws and be governed by the requirements of their own statutes.

OBJECTIVES

Two principal objectives are involved in the investigation of every hit-and-run accident:

1. To obtain evidence identifying the suspected car with the vehicle involved in the accident.
2. To obtain evidence identifying the suspect with the driver of the vehicle at the time the accident occurred.

Failure to prove both of these objectives may result in the dismissal of the case or an acquittal of the subject. Instances have occurred where sufficient evidence was obtained to locate and identify a suspect's car, but failure to prove that the suspect was actually driving the car when the accident occurred resulted in his acquittal.

INVESTIGATIVE SUGGESTIONS

Obviously, the first responsibility of the investigating officers upon arriving at the scene of a hit-and-run accident is to administer first aid or otherwise assist anyone who is injured. Immediate steps should also be taken to keep spectators out of the accident area so that evidence will not be disturbed or destroyed. Attempts should be made at the same time, if possible, to locate witnesses who are able to describe the hit-and-run vehicle, its driver, and its occupants.

If witnesses are located officers should attempt to obtain a complete description of the vehicle emphasizing unusual items of description which are easily recognized and identified. Descriptive items such as the following may prove extremely valuable in locating the vehicle: stickers on windows or windshield, dented fenders, white sidewall tires, radio aerials, distinctive ornaments and fixtures, broken window glass, unusual colors and body styles, out-of-state license plates, etc. Broken headlight glass, a broken door handle, or a hub cap found at the accident scene suggests items of description which should not be overlooked. Occasionally witnesses who saw the accident or saw the vehicle as it fled from the scene may be able to furnish additional or complete descriptions including the make, model and license number of the vehicle. As soon as possible the best available description should be furnished to police headquarters for immediate broadcasting to all police cars. Since hit-and-run vehicles are generally removed from the streets within a short period after the accident, it is important that the best available description be broadcast at the earliest

possible moment so that an effective blockade or search may be conducted.

In attempting to locate witnesses who might have seen the accident or the fleeing automobile, officers should not confine their inquiries solely to the immediate neighborhood around the accident scene. It is quite possible that someone working or driving along the route followed by the hit-and-run driver may have been attracted by the vehicle, and thus be able to give a good description of the automobile. A service station operator, a housewife, a truck driver or a delivery boy may have seen the vehicle traveling at a high rate of speed. An appeal through local newspapers for information regarding any likely suspect observed in the vicinity or along the getaway route about the time of the accident may produce valuable information. Any data concerning the vehicle or the driver which would be of value in locating the subject should be broadcast as it is received, so that all police in the area are acquainted with the additional information as soon as possible.

Search of the Accident Scene:

Searching the scene of a hit-and-run accident is one of the most important steps in the investigation for it is there that most evidence will be found which is necessary to locate and identify the hit-and-run vehicle. The same organized procedure should be followed in protecting and safeguarding the accident scene and in subsequently carefully searching for evidence, as in the case of a murder the solution of which depends upon finding a single fragmentary bit of evidence left by the criminal.

In a hit-and-run accident case a small fragment of paint chipped from the fender of the automobile, a very small piece of headlight glass, a tire mark, a heel print or a broken piece of metal may be the only evidence left at the scene. To prevent such evidence from being disturbed or lost requires that the entire accident scene be protected immediately. If necessary, the area should be roped off or additional officers obtained to assist in keeping motorists and spectators out of the accident area. Adequate warning devices should also be erected to warn other motorists traveling on the highway of the hazard ahead. This is also necessary to protect those working in the vicinity of the accident.

In looking for evidence officers should plan the search so that every part of the area is carefully searched. Cross searching of the area will provide a double check to make certain that all evidence is found. A haphazard procedure of searching may be fruitless or valuable evidence may be disturbed or destroyed. Occasionally it may be advisable to search a large area along the highway since it is possible that evidence may have been carried for some distance or thrown because of the speed of the automobile or the force of the impact. The area to be searched will therefore vary in size depending upon the circumstances found at each accident scene.

In one hit-and-run accident which occurred in a rural area investigating officers found a tire mark on the shoulder of the roadway near the point of impact. Believing that this tire mark was made by the hit-and-run

vehicle, the officers reproduced it by sketch, photographs and a moulage cast, and then began a systematic search of all crossroads leading off the highway upon which the accident occurred and in the direction traveled by the hit-and-run driver. After many hours of searching and at a distance of about thirty miles from the accident scene a tire track similar to that reproduced at the scene was found leaving the hard surfaced highway. The track was followed over a dirt road to a farmhouse several miles off the main highway. Upon arriving at the farmhouse, the officers noticed a small farm truck parked in the garage. The right front tire of the truck had a tread design similar to the print found at the scene. A careful search of the vehicle disclosed several small hairs, a few fibers, and some blood stains. All of this evidence was carefully collected, preserved and labeled for later comparison with known specimens obtained from the victim and his clothing. When the owner of the vehicle was interviewed and the officers advised him of the evidence they had collected, he readily admitted that he was the driver of the hit-and-run vehicle. Later he entered a plea of guilty when arraigned before a judge.

Efforts to Locate the Automobile:

Locating the hit-and-run vehicle will often depend upon the evidence found at the scene and information obtained through interviews with witnesses. Any evidence, such as paint particles, glass fragments, tire or footprints, soil specimens, or broken parts should be carefully preserved, labeled, and identified and then forwarded to the FBI Laboratory for examination.

Mention has already been made of the possibility of locating witnesses by inquiry in the neighborhood and along the getaway route. Instances have occurred where hit-and-run drivers have been involved in other accidents subsequent to the hit-and-run accident, or have had near collisions with motorists or pedestrians while fleeing from the accident scene. There is always the possibility that someone observed the vehicle and either made a note of its license number or would be able to give a fairly good description. No possibility should be overlooked in attempting to locate such witnesses. If a drunken driver is suspected consideration should be given to the advisability of back-tracking on the route of the hit-and-run vehicle, checking at taverns and beer parlors for information regarding likely suspects.

Stolen automobile reports should receive careful consideration by officers investigating hit-and-run accidents. In many instances, motorists involved in hit-and-run accidents have reported that their automobiles were stolen. Such alleged thefts generally indicate that the automobile was stolen prior to the time of the accident. In such cases the subject may reason that by reporting his automobile stolen no suspicions will be directed toward him in connection with the hit-and-run accident. Cases have been known where motorists, after having been involved in hit-and-run accidents, have burned or otherwise disposed of their automobiles to destroy all possible chances of being located. All reports on stolen automobiles submitted immediately following hit-and-run accidents should be thoroughly

investigated with this possibility in mind.

Checking garages, parking lots, used car lots and other places where a vehicle might be stored or taken for repairs may frequently be of value in locating the hit-and-run vehicle. Generally if a car is not located within a reasonable time after the accident occurred, it may be assumed that the driver removed it from the streets and placed it in a private garage, commercial garage, or parking lot. Frequently a vehicle, if damaged in the accident, will be taken directly to a garage for repair and replacement of damaged parts.

A pre-arranged list of all garages, parking lots and other likely storage or repair places will facilitate the assignment of police cars to conduct the necessary inquiries. Likewise police will find that pre-arranged contacts with garage managers or employees may result in immediate reporting of a damaged vehicle when a car is taken to a garage for repairs following a hit-and-run accident.

Search of Suspected Car:

When a suspected car is located it should be impounded and searched immediately for evidence. This search should be very thorough. All exterior parts of the automobile should be carefully examined. Special attention should be given to all protruding parts where hair or fibers might have been caught. All damaged parts should be noted and inspected for traces of blood or signs of contact with other objects. No foreign material should be discarded from consideration until its source is definitely determined. Evidence of recent damages, repairs, new paint jobs or wash jobs should be carefully noted. If damaged parts have been replaced, attempts should be made to obtain the original parts. The undercarriage of the vehicle should receive special attention. To properly search the undercarriage it may be necessary to place the automobile over a mechanic's pit or on a grease rack, so that all parts may be carefully inspected. Spots which appear to have been brushed by an object and all protruding parts should be thoroughly examined for hairs, fibers and blood spots.

If it is determined in the investigation that the vehicle actually had been stolen consideration should be given to the possibility of developing latent fingerprints with which to identify the subject.

To illustrate how a careful examination of a suspected car may disclose evidence of considerable value, let us consider a case which occurred several years ago in an eastern state. A pedestrian was seriously injured when struck by a passing automobile and died two days after the accident. Investigating officers located a suspect through a witness who had seen him near the accident scene on the evening the accident occurred. The suspect agreed to permit officers to examine his car. After carefully examining all sides of the vehicle, the automobile was placed on a grease rack to permit better examination of the undercarriage. During the examination of the undercarriage, the officers observed that a portion of the automobile frame had been wiped clean and that the wishbone of the steering

mechanism bore faint impressions indicating that possibly some rubber footwear had come in contact with it. Further examination disclosed a small fragment of thread adhering to a portion of the car frame. The wishbone was removed and the small thread transferred to a suitable container to be preserved for subsequent examination. To facilitate handling, a portion of the wishbone bearing the impressions was cut from the main piece after adequately protecting the impressions to avoid their destruction.

These specimens were then sent to the FBI Laboratory with the request that the impressions be compared with the rubber footwear of the victim and that the small fiber be compared with the victim's wearing apparel. The laboratory examination revealed that the impressions on the wishbone were similar in size, style and design to a portion of the sole of the rubber footwear. This fact was charted photographically. A microscopic examination of the fiber showed it to be similar to yarns from the victim's trousers. This information was furnished to the local police, and a laboratory technician was requested to give testimony at the trial of the defendant. As a result of the testimony given, the defendant was found guilty and sentenced to the penitentiary.

Interview with Suspect:

When a suspect is located, he should be immediately questioned concerning his knowledge of the accident. Skillful questioning by the investigating officers may lead him to give a complete account of the accident. Officers should attempt to determine the continued use of the suspect's automobile before and after the accident occurred. All alibis and statements made should be checked to a logical conclusion. If evidence has been found connecting the car with the crime, a skillful interview will undoubtedly result in the suspect's giving a signed statement admitting his guilt.

In some few cases, officers may obtain an admission of guilt from a suspect without having obtained sufficient evidence to identify the car with the accident. In such cases, even though an admission of guilt has been obtained, the car should be carefully examined and any evidence found properly preserved and compared with evidence found at the scene of the accident so that the officers are able to prove, if necessary, that the suspect's vehicle was involved in the accident. Being prepared to submit the evidence if necessary will prevent the loss of many cases.

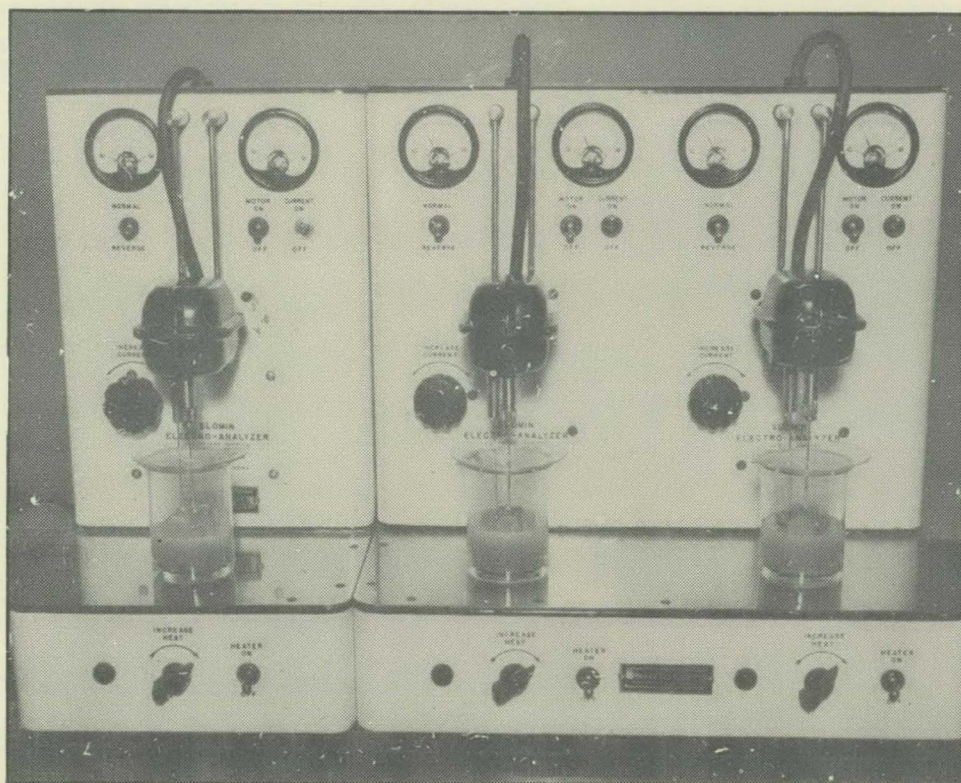
Pending Cases:

When a case is not solved immediately, it should remain in a pending status. All evidence found at the scene should be carefully preserved so that a vehicle may possibly be identified if located at any later date. Cases have been known where hit-and-run drivers have disposed of their automobiles for long periods of time following such accidents. If the evidence obtained is properly preserved, it may be possible to solve such cases many months and even years after an accident occurred.

PART II

A REVIEW OF NEW ANALYTICAL INSTRUMENTS IN THE LABORATORY OF THE FEDERAL BUREAU OF INVESTIGATION

In connection with the determination of the composition of evidence, there are several new precision instruments available in the Laboratory to aid the examiner. The branch of chemistry commonly called electrochemistry employs electrical methods for the analysis of materials. The changes that take place when a current of electricity is passed through a chemical solution constitute one of the most important phases of electro-



PHOTOGRAPH No. 6
ELECTROANALYZER.

chemistry. Simple electric cells and storage batteries are examples of the production of electrical currents from chemical reactions. If a current is permitted to pass through a small cell containing two platinum electrodes immersed in a copper sulphate solution, copper will be deposited on the

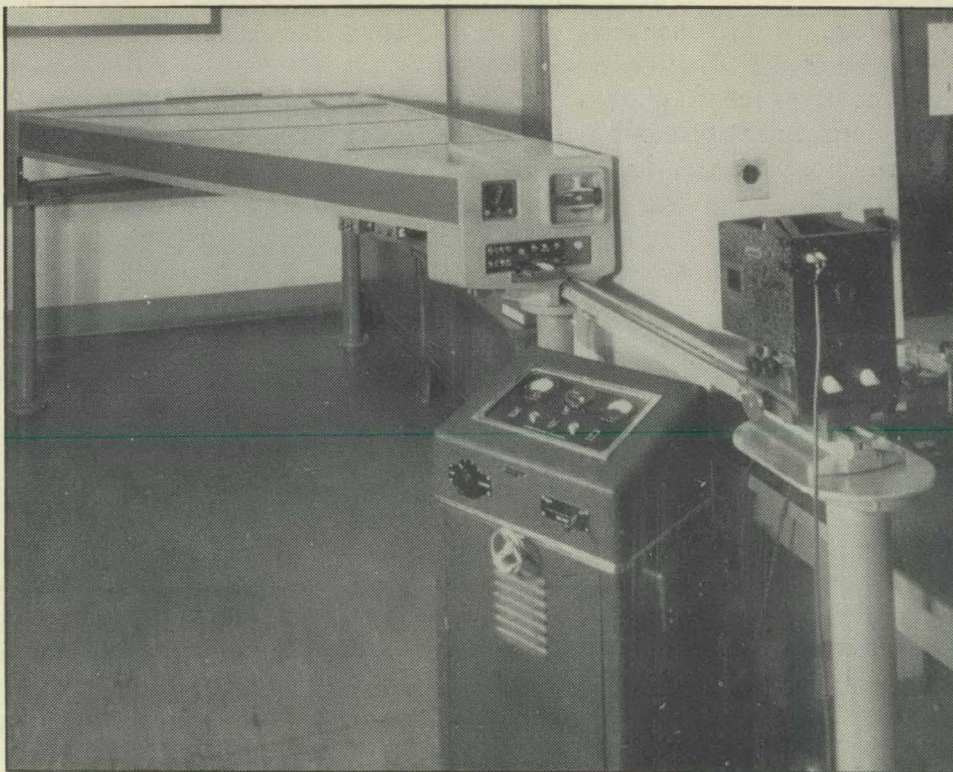
platinum electrode which carries the negative charge. The action of various chemical substances under the influence of an electric current makes electrolysis an important method for rapid quantitative analysis and it forms the basis of several new electroanalyzers presently in use in the Laboratory. Electro methods are applicable to the quantitative analysis of metals, alloys, metallic poisons, metallic pigments, metallic salts, et cetera. The use of electrosynthesis in changing one substance to another substance is often very helpful in the determination of the identity of a substance. Photograph #6.

It is frequently essential in the course of an examination to obtain information about a substance which the common methods of chemical analysis cannot readily provide. Such information may be the identification of the trace of some element, the determination of the crystalline structure of some chemical compound or the recording of some attribute of the sample, such as its color. These properties can be determined by physical measurements, for which a variety of complicated instruments have been devised. Several of these are available in the FBI Laboratory. While each of these instruments has a highly specialized use, there is one function connected with all of them - they deal with the electromagnetic spectrum.

Spectrographic techniques have been employed in the FBI Laboratory for many years, and as a result many unusual and novel methods of handling and analyzing minute quantities of evidence have been developed. The light that is radiated when a specimen burns is readily analyzed spectrographically, and a permanent photographic record of the chemical constituents of the material burned is produced. In some cases in which the quantity of evidence is extremely small, the entire specimen must, of necessity, be burned and destroyed and on these occasions the photographic record becomes the only record of the evidence in the case. Each known chemical element, whether alone or in combination, emits its own unique light when burned, and fortunately, the photographic plate accurately records the analyzed light from a burning substance.

On repeated occasions reference has been made to the successful identification of foreign particles on the cutting edges of tools as having originated from a certain damaged source. The detection of trace elements, of alloying elements in steels, such as manganese, nickel, chromium, silicon, and most of the other metallic elements; impurities in zinc die castings which promote intercrystalline oxidation and mechanical failure; the essential elements in the various aluminum and magnesium alloys which formed such an important part of the war program; the purity of numerous chemical products - these and many other analytical problems are being handled effectively on the spectrograph.

In order to expand the Laboratory's facilities to perform more extensive qualitative and quantitative spectrographic examinations, a Large Grating Spectrograph and an Infrared and Visible Absorption and Reflection Spectrophotometer have been purchased. Photograph #7.



PHOTOGRAPH No. 7. THE NEW GRATING SPECTROGRAPH RENDERS INVALUABLE ASSISTANCE TO POLICE IN HIT-AND-RUN CASES.

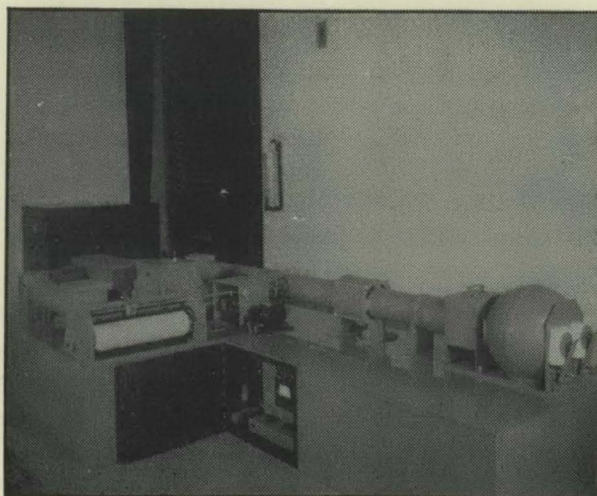
The Large Grating Spectrograph is used in conjunction with a Medium Quartz Spectrograph which has long been used in the Laboratory. The Quartz Spectrograph suffices to analyze qualitatively rather simple compounds and mixtures and it is an essential tool for general spectrographic analysis. When quantitative analyses and analyses of complicated mixtures are encountered, a Large Grating Spectrograph is necessary to disperse the spectral lines of the elements on the photographs made in the spectrograph (the spectral lines are the characteristics used to identify the elemental constituents of a mixture or a compound - each element radiating a different pattern of spectral lines) and allow weak lines of the minor constituents of the material being examined to be discerned. In addition, the increased dispersion of the spectral lines makes it possible to more readily measure the blackness or density of the spectral lines with a densitometer and consequently determine the percentage composition of the material.

The spectrograph, which for many years was used primarily as a means for providing additional data relating to astronomical phenomena, has found its way into mass analyses providing both quantitative and qualitative control of the composition of materials. The determination of the composition of alloys such as steels, duralumin and magnalium can now be determined spectrographically thus eliminating the time-consuming analytical chemical procedures previously employed. Since frequently speed is essential in an

analysis of criminal evidence, this instrument provides great possibilities in bringing criminal investigations to a rapid conclusion.

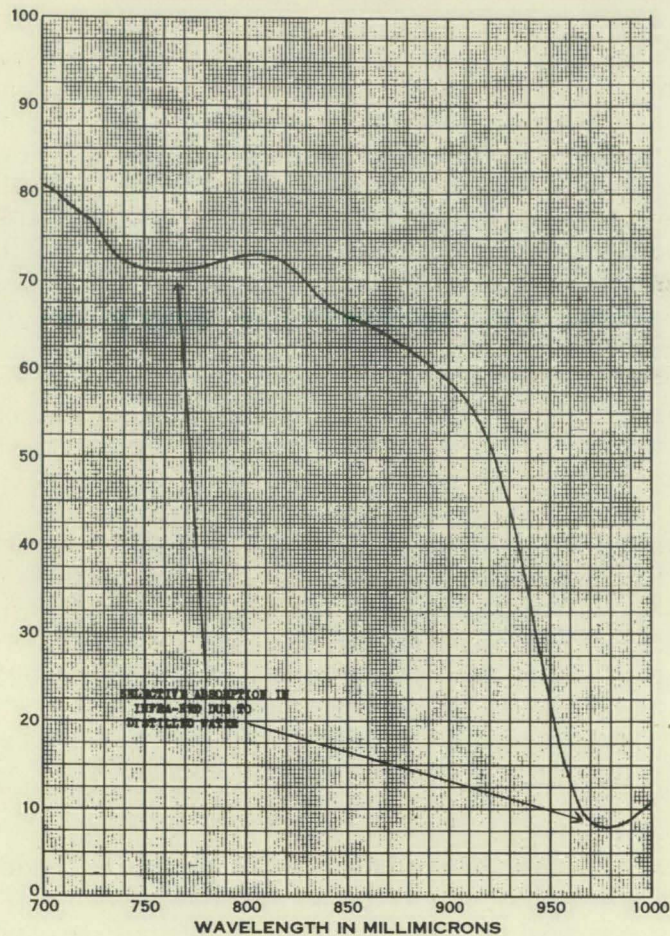
One application of this instrument, in particular, presents itself. The recent establishment of a National Automobile Paint File in the Spectrographic Unit of the Laboratory which contains specimens and specifications of automobile paints from commercial and passenger cars as well as for the cars and other mobile units of the armed services, has aided in showing that the small fragments of paint found at the scene of a crime or on the victim's clothes or motor vehicle in a hit-and-run case, originated from a certain year, make and model of car. The successful application of this information can be employed only if qualitative and quantitative determinations of the constituents can be made. Such information can only be derived spectrographically.

The Laboratory's spectrophotometer automatically determines and records the spectral reflection and transmission characteristics of materials. An illuminating source is employed in the instrument which radiates light of all of the visible colors as well as infrared light and each type of light is allowed, in reflectance measurements or in the determination of the absolute color of a material, to fall on the specimen of prepared evidence. Certain parts of the light spectrum are reflected from the specimen, depending on its composition, color and surface characteristics and the reflected light is picked up on a photoelectric cell and graphically recorded, from which record the color, composition and surface characteristics can be determined. The application of this unit is of inestimable value in the analysis of painted surfaces from automobiles and other coated surfaces and camouflaging films. In using the instrument for absorption analyses, the spectral emissions from the light source pass through the solution or gas being analyzed and its color, as in the case of a dye, its qualitative and quantitative composition can be readily determined even on very small bits of evidence so commonly encountered in criminal investigations. Photograph #8.



PHOTOGRAPH No. 8. SPECTROPHOTOMETER RECENTLY
ADDED TO EQUIPMENT OF FBI LABORATORY.

Photograph #9 illustrates the absorption due to water in the infrared region of the spectrum.



PHOTOGRAPH No. 9.

These new instruments and instruments of old standing in criminal work aid greatly in the examination of evidence. The responsibility of maintaining the internal security of our country, in accordance with the President's Directive of September 6, 1939, increased tremendously the volume of scientific work flowing into the FBI Laboratory from Federal, state, county, and local law enforcement agencies. In the fiscal year ending July 1, 1940, the Laboratory conducted 7,097 examinations involving 39,500 specimens of evidence whereas in the fiscal year ending July 1, 1945, 136,098 examinations were performed on 194,445 specimens of evidence. These figures indicate that the Laboratory has now a capacity to handle a large volume of evidence and it is hoped that Federal and local law enforcement alike will take advantage of these facilities whenever the Laboratory of the FBI can be of assistance in criminal matters.

TYPES OF CODES AND CIPHERS

ENCOUNTERED IN POLICE WORK

Cryptography is one of the oldest forms of writing. Throughout the ages men have used various devices to communicate secretly with one another. While cryptic writings usually flourish during time of warfare, their use is by no means restricted to the military or diplomatic corps, though it must be admitted that the greatest contributions to the science have been generally made by such departments. However, it is not infrequent that criminals of the underworld also make use of cryptic communications. Organized rings operating on a big business scale have a need for the proper maintenance of various records and accounts. Inasmuch as records might become incriminating evidence, the contents of such material are occasionally made unreadable by the use of some form of cipher. The type of cipher usually encountered in the course of police investigations is rather elementary. This fact enhances the productivity of police work when such documents are discovered, since the cipher material can usually be unravelled in a relatively short time.

Perhaps, the simplest form of cipher to be encountered is the "Julius Caesar" simple substitution type. This cipher system, which was actually used by the Roman emperor, is used today principally by school boys. Because of its extreme simplicity, police encounter cipher messages of this type largely among the reform-school population and the uneducated.

According to this system the alphabet is slid forward a certain agreed upon number of spaces, for example three spaces as follows:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C

The letters of this cipher alphabet now become the cipher equivalents of the normal alphabet which would be written above it. Thus, normal or plain-text letter A would be represented by cipher letter D, plain-text B by cipher text E, and so on.

In order to make a substitution system of this type a little more complex, the amateur mixes the cipher alphabet sequence so that the letters apparently follow in no certain order. Practically every police department has at one time or another picked up a little notebook or diary, one page of which begins something like this:

A = K
B = Q
C = X
D = H

Inasmuch as a cipher alphabet sequence of this type follows no certain order, it is obviously necessary for the various accomplices employing such a scheme of communication to maintain a written key in a notebook or elsewhere. An improvement on this type of cipher is one in which an apparently random cipher alphabet sequence is preserved without the necessity of committing it to a notebook. All that is necessary is to memorize some phrase such as "the quick brown fox." This phrase forms the

beginning of the cipher alphabet after which there follow the remaining unused letters according to their normal order of succession. Of course, all repeated letters in the introductory phrase are dropped out. Such a cipher alphabet would look like this:

Cipher: T H E Q U I C K B R O W N F X A D G J L M P S V Y Z
 Plain: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

One example of a cipher system which employs a device of this type to mix the alphabet was forwarded to the Bureau by the New Mexico State Police. The cipher alphabet was found to be based upon the keyword ORTI2. The entire alphabet was written into a box five units wide and five units deep with the letters "j" and "k" occupying the same cell, like this:

O	R	T	I	Z
A	B	C	D	E
F	G	H	<u>JK</u>	L
M	N	P	Q	S
U	V	W	X	Y

The cipher message and its decipherment were found to be as follows:

DEAR CONCHA
 NPP JK SHDSYP

YO (U) ARE ONE OF THE LOVELIEST OF GIRLS
 HH JK PJKP HDP HT LZP TH JKP WGPCL HW X JK WC

The encipherment of this message was accomplished by locating the letter to be enciphered in the 5 x 5 square and taking as its substitute the diagonal of an imaginary 3 x 3 square. This diagonal could extend either to the lower left, lower right, upper left, or upper right, whichever was possible. In the case of letters in the middle row "F G H JK L", either the upper or lower diagonal apparently could be chosen, whereas in the case of letters in the middle column, "T C H P W", probably either the right or left diagonal could be chosen. A comparison of some of the letters in the cipher text with their plain text equivalents will quickly illustrate how these positions appear in the box. A study of the message also indicates that the writer probably made some mistakes in his encipherment. The letter "u" in the word "you" does not appear on a diagonal from "jk", but rather from the cell just next to "jk". The writer also apparently omitted the cipher equivalent for the letter "i" in "girls".

Many individuals use numerals rather than letters in their cipher systems, although it is to be noted that in simple substitution ciphers the order of complexity is just the same.

The most primary type of cipher alphabet would be composed of numbers 1 to 26 consecutively, with 1 representing A, 2 representing B, and so on. Not long ago, a Colorado sheriff submitted to the FBI Laboratory a cipher of this type. This cipher was written on a postcard to a murderer doing life in the State Penitentiary. The decipherment revealed a simple love letter from the prisoner's wife, "Dearest sweetheart, honey, do you know who loves you? I'm going to give you something to keep you busy. I love you with all my heart and I miss you so. Love and kisses to you only. From your wife."

It is typical that ciphers of this extreme simplicity do not furnish anything very incriminating when deciphered. The concealment of more confidential information is normally entrusted to a more complicated system.

In the cipher system just illustrated, some complexity could be introduced if the straight numerical sequence of numbers from 1 to 26 were mixed up. Mixing the numerical sequence into a random order can be done either by a haphazard arrangement necessitating the maintenance of the written key, or by some schematic design which could be committed to memory. There is, of course, an infinite variety of such schematic systems, but one of the more popular ones is as follows: A box of a given size is chosen, say six units long, into which is written the consecutive sequence 1-26, as shown below.

1	2	3	4	5	6
1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26				

All that is necessary now is to take off the successive vertical columns, and join them end to end until one long row is obtained, thus:

1-7-13-19-25,-2-8-14-20-26,-3-9-15-21,-4-10-16-22,-5-11-17-23,-6-12-18-24
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

A cipher employing a mixed numerical sequence appeared in the FBI Laboratory, and upon solution was found to be as follows:

MESSAGE: T H A N K F O R Y O U R I N F O R M A T I O N L A Y
CIPHER: 4-25-19-6-26 5-17-7 8-17-20-7 11-6-5-17-7-21-19-4-11-17-6 24-19-8
MESSAGE: L O W F B I
CIPHER: 23-17-15 5-1-11

This material was turned up in connection with the investigation of a certain extortion case.

The solution of ciphers of this type is based primarily upon a study of the frequency of each letter or symbol occurring in the cipher message. Letters like E or T are very frequent in the English language whereas such letters as J or Z are quite infrequent. (In fact, tables have been compiled,* listing the approximate order of normal frequency of each letter as follows:

E T A O I N S R H L D C U M F W G Y P B V K X J Q Z

The objective of the cryptanalyst is to connect those letters, numbers, or symbols in the cipher text which are repeated a great number of times with the proper hi-frequency letters of the English plain-text. Of course if the cryptogram is concealing a foreign language message, the hi-frequency symbols will necessarily have to be connected to the frequency table which has been worked out for that language. Trial and error play some part in arriving at these proper associations, but there

* See February, 1933, issue of Fugitive Bulletin (FBI Law Enforcement Bulletin)

are indeed a number of scientific techniques whose employment rapidly facilitates solution. Inasmuch as such techniques are discussed in detail in standard texts on this subject, no further reference to them need be made here.

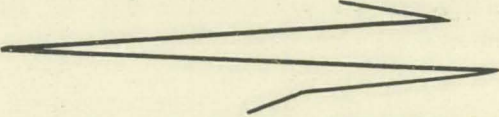
Ciphers whose letter units consist of strange symbols or designs are no more difficult to solve than if they had been written with normal English letters. In fact, most cryptanalysts immediately convert the whole cryptogram into English letters, and then proceed from there to solve it. The conversion process is very simple. The letter A is written above the first symbol, and above every other symbol like it throughout the message; the letter B represents the next symbol, and all other symbols like it, throughout the text; and so on until all the symbols have been replaced by letters. This conversion acts as a visual aid in the application of all the finer techniques in the solution of ciphers of this type that can be employed.

An example of a symbol cipher system was found in the notebook of a person who was ordered interned by the Attorney General. These symbols with their plain text equivalents, were as follows:

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
⌈	┐	┌	└	┐	┌	└	┐	┌	└	┐	┌	└	┐	┌	└	┐	┌	└	┐	┌	└	┐	┌	└	┐

Occasionally ciphers result from a system so clumsy that a decipherment will be ambiguous or altogether impossible. One such type is based upon the employment of a very few different symbols, so that each symbol represents any one of several different letters. Thus, while it may be easy to convert the English message into a series of symbols, it is often difficult or impossible to take that series of symbols and reconvert it into the original plain text.

From time to time scraps of material turn up in an investigation which at first glance would not be recognized as containing a cipher. One such, for instance, could be a scrawling, zig-zag line. Yet if an alphabet is superimposed at the proper position above the line, it might be found that each apex was directly under a letter in the alphabet, which taken in sequence would spell out a message, thus:

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
																									

Sometimes cipher messages are found in which there are only 5 different kinds of letters, perhaps just the 5 vowels - as follows:

OI AA UE AE IA AA AO AU OI

This, however, immediately suggests some type of system wherein two cipher letters represent one letter of the message. Such a digraphic scheme might be the one set out below:

	A	E	I	O	U
A	A	B	C	D	E
E	F	G	H	I	J
I	L	M	N	O	P
O	Q	R	S	T	U
U	V	W	X	Y	Z

Let us take each pair of letters in the message, one pair at a time. A brief inspection indicates that row "O" intersects column "I" at a point in the box which is occupied by the letter "S", row "A", and column "A" intersect at letter "A", row "U" and column "E" intersect at "W", and so on until the whole message "SAWBLADES" appears.

Obviously, there are an infinite number of ways of writing secret messages. Ciphers have been composed out of artfully knotted strings, colored beadwork, pictures, and even music. Such a bizarre approach, however, is not usual with this problem.

A more common type of case involved alleged bookmaking and the meaning of seven sheets of paper which were covered with groups of letters. Analysis indicated that the various letters on these sheets could be rearranged into the key phrase "HOW IS FRANK". The ten different letters were then assumed to represent in order from 1 to 10 the numerical digits. After substitution it was found that the resulting figures could be associated with the numbers of various races, the post positions, and bets made.

In an income tax trial a cipher which had been examined in the FBI Laboratory played a prominent part. The cipher was employed in the concealment of secret cash payments to several political figures.

Part of the government's evidence consisted of cash vouchers bearing short cipher messages in the lower left hand corner. A Bureau cryptanalyst pointed out that these ciphers were based on a type of substitution in which, through the use of a key word, one letter would be substituted for another. The key word used in this case was "Comandeurs". This 10 letter key word was written into a box ten spaces long, and below it was written the normal alphabet, like this:

	C	O	M	A	N	D	E	U	R	S
A	B	C	D	E	F	G	H	I	J	
-K	L	M	N	O	P	Q	R	S	T	
+U	V	W	X	Y	Z					

It is noted that a minus sign precedes row K to T, and a plus sign row U to Z.

The cipher worked as follows. The letter "C", the first letter of the code word, would have three letters underneath it: A, K, and U. If this letter "C" has no plus or minus sign in front of it, then it is enciphering the plain text letter "A"; if "C" has a minus sign in front of it, it is enciphering plain text "K"; and if a plus sign it would encipher "U". The same principles would also apply to the other nine code letters. An example of one of the cipher messages, with its decipherment, is as follows:

CIPHER:	-M	-U	-R	O	+C	-U	-S	-N	-A	O	-N	-N	-C	-R
MESSAGE:	M	R	S	B	U	R	T	O	N	B	O	O	K	S

Such examples indicate that law enforcement agencies must be alert to the possibilities of secret communications. Early recognition of the nature of the material and an employment of the principles of cryptanalysis can make a vital contribution to the solution of a case.

WANTED BY THE FBI
DIXIE VERNON, with aliases

Sitting unsuspectingly in a parked automobile, Rector Jones, an invalid, was the victim of a ruthless shotgun murder on October 18, 1934, in Carroll County, Virginia. The fatal blast was fired by one of his best friends, Dixie Vernon, with whom he had been on a party only a short while before. To this day no cause for the slaying ever has been discovered, and apparently it was unprovoked.

Vernon fled immediately and during March of 1935 he was indicted for murder in the Circuit Court at Hillsville, Virginia. Every possible lead was investigated, but it became evident that Vernon had fled from that section of the country. The Commonwealth's Attorney of Carroll County called upon the Federal Bureau of Investigation to aid in the search inasmuch as it by then appeared obvious that Vernon had departed from the State of Virginia to avoid prosecution.

On September 2, 1937, a complaint was filed before the United States Commissioner at Hillsville, Virginia, charging Vernon with unlawfully fleeing from the state to avoid prosecution for murder. Since then the FBI's search has extended through the South, Midwest and Far West but Vernon appears to have covered his trail well.

Vernon was born March 24, 1900, in Carroll County, Virginia, in the rugged Blue Ridge Mountains region. He grew up in this area, and as a young man he acquired considerable notoriety for his bootlegging activities.

On March 22, 1929, Vernon enlisted in the United States Army at Richmond, Virginia. He served in North Dakota, Minnesota and Arkansas, finally being discharged at Fort Snelling, Minnesota, on February 17, 1930, because of his undesirable attitude and traits of character. From life in the Army, Vernon returned to Carroll County, Virginia, and resumed his bootlegging. He also embarked on a career of gambling and was said to have become quite proficient.

Vernon has a wife and three children who reside near Cana, Virginia. At one time he worked as a barber, and the FBI developed information that during his flight Vernon associated for a while with a woman barber at Parkersburg, West Virginia.

Information also was received that Vernon has been in the State of Oregon working on a ranch. He is described as a "ladies' man" and fond of gambling and motorcycles.

Just a few weeks prior to the murder for which he is being sought, Vernon was arrested by the Sheriff's Office at Hillsville, Virginia, on a charge of breaking and entering. He stood trial and was acquitted.

Caution is urged in the event he is located. It is not known definitely if Vernon is armed; however, the people of the mountains who know him say he is "a dangerous man and will probably give trouble when cornered." Prior to the murder of Rector Jones, he was constantly armed with either a shotgun or revolver.

PHYSICAL DESCRIPTION*

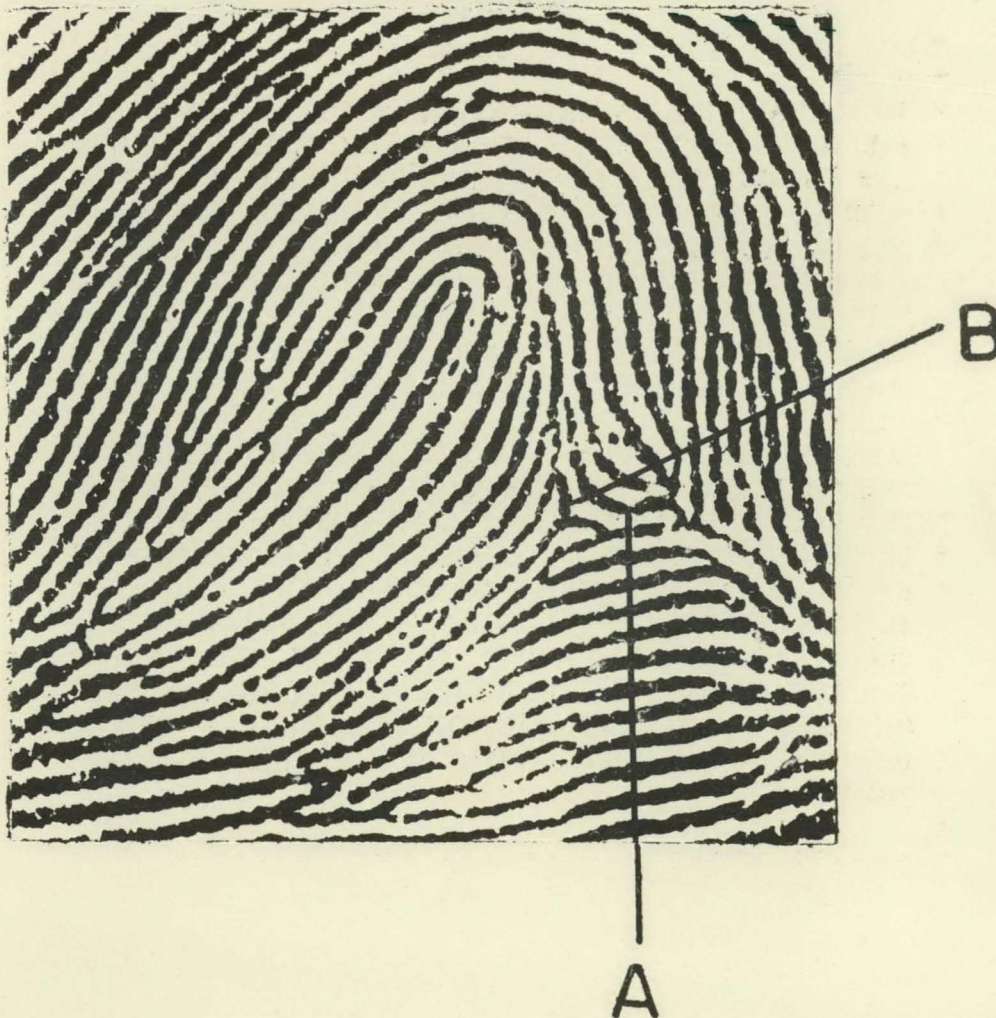
Name	DIXIE VERNON, with aliases, Charlie Dixie Vernon, Charley Dixie Vernon, Bob Webb, George Webb
Age	45
Date of Birth	March 24, 1900
Place of Birth	Cana, Carroll County, Virginia
Height	5'6"
Weight	150 pounds
Eyes	Blue or hazel
Hair	Light brown or sandy
Complexion	Ruddy
Identifying Marks	Numerous scars on his right leg resulting from inci- sions to cure abscesses; white birthmark near left eye, turns red when angry; gap between two upper front teeth
Peculiarities	Smokes incessantly; looks down at feet when in con- versation
Fingerprint Classification	19 O 5 R 000 16 I 19 W 000
Identification Order	No. 1569 issued October 22, 1938.

*Photograph of Dixie Vernon appears on back cover.

IF YOU ARE IN POSSESSION OF ANY INFORMATION REGARDING THE WHEREABOUTS OF DIXIE VERNON, PLEASE CONTACT, BY TELEPHONE OR TELEGRAPH, JOHN EDGAR HOOVER, DIRECTOR, FEDERAL BUREAU OF INVESTIGATION, UNITED STATES DEPARTMENT OF JUSTICE, WASHINGTON, D. C., OR THE AGENT IN CHARGE OF ANY FBI FIELD OFFICE, THE ADDRESS OF WHICH MAY BE ASCERTAINED FROM THE INSIDE BACK COVER OF THIS BULLETIN.

A QUESTIONABLE PATTERN

The pattern illustrated appears at first glance to be a double loop type whorl. But a closer examination reveals that it does not have all the necessary requirements for a whorl pattern.



Ridge (A) does not form a sufficient recurve because it is spoiled by a right angle appendage. The pattern would therefore be classified as a loop with a ridge count of six. The delta is located at point (B). A reference search would be conducted as a double loop.

NOTICE

IN FORWARDING FINGERPRINT CARDS FOR SEARCH AND FILING IN THE IDENTIFICATION DIVISION OF THE FBI, LAW ENFORCEMENT OFFICERS ARE REQUESTED TO FURNISH IN EVERY INSTANCE WHERE AVAILABLE, THE FBI NUMBER, LOCAL POLICE NUMBERS, AND ALL AVAILABLE INFORMATION AS TO PREVIOUS CRIMINAL HISTORY. SUCH INFORMATION NOT ONLY ASSISTS THE IDENTIFICATION DIVISION BUT IT MAKES MORE COMPLETE INFORMATION AVAILABLE TO ALL LAW ENFORCEMENT.

EFFECTIVE JULY 1, 1945, IT BECAME NECESSARY FOR THE SYMBOL "P.M.G.C." TO APPEAR UNDER THE FRANKED INDICIA IN THE UPPER RIGHT HAND CORNER OF ENVELOPES USED FOR THE TRANSMITTAL OF FINGERPRINT CARDS TO THE FBI. WHILE ALL ENVELOPES FURNISHED TO LAW ENFORCEMENT AGENCIES IN THE FUTURE WILL BEAR THE NECESSARY SYMBOL IT WILL BE NECESSARY FOR LAW ENFORCEMENT AGENCIES TO TYPE THE SYMBOL ON ALL ENVELOPES PRESENTLY ON HAND SO THAT THEIR USE WILL BE IN CONFORMITY WITH POSTAL REGULATIONS.

Communications may be addressed to the Field Office covering the territory in which you are located by forwarding your letter or telegram to the Special Agent in Charge at the address listed below. Telephone and teletype numbers are also listed if you have occasion to telephone or teletype the Field Office.

CITY	AGENT IN CHARGE	TELEPHONE NUMBER	BUILDING ADDRESS (Letters or Telegrams)
Albany 7, New York	Starke, J. J.	5-7551	707 National Savings Bank
Anchorage, Alaska	McConnell, H. L.	Main 521	Federal Building
Atlanta 3, Georgia	Smith, R. E.	Walnut 3605	501 Healey
Baltimore 2, Maryland	Hallford, Fred	Lexington 6700	800 Court Square
Birmingham 3, Alabama	Abbatechio, R. J.	4-1877	300 Martin Building
Boston 9, Massachusetts	Soucy, E. A.	Liberty 5533	100 Milk Street
Buffalo 2, New York	Wilcox, J. B.	Madison 1200	400 U. S. Court House
Butte, Montana	Banister, W. G.	2-2504	302 Federal
Charlotte 2, N. C.	Scheidt, E.	3-4127	914 Johnston
Chicago 3, Illinois	Drayton, S. J.	Randolph 2150	1900 Bankers'
Cincinnati 2, Ohio	Holloman, F. C.	Cherry 7127	637 U. S. Post Office & Court House
Cleveland 13, Ohio	O'Connor, E. J.	Prospect 3550	900 Standard
Dallas, Texas	Wyly, P.	Riverside 6101	1318 Mercantile Bank Building
Denver 2, Colorado	Kramer, R. P.	Main 4335	518 Railway Exchange
Des Moines 9, Iowa	Kühnel, E. E.	3-8618	739 Insurance Exchange
Detroit 26, Michigan	Guerin, R. A.	Randolph 2905	906 Federal Building
El Paso, Texas	Suran, R. C.	Main 1711	202 U. S. Court House
Grand Rapids 2, Michigan	Bobbitt, H. L.	6-5337	715 Grand Rapids National Bank
Honolulu 16, Hawaii	Moore, R. L.	4977	206 Dillingham
Houston 2, Texas	Willis, G. N.	Charter 4-6061	1221 Niels Esperson Bldg.
Huntington, W. Va.	Ryan, W. C.	2-9366	700 West Virginia
Indianapolis 4, Indiana	Dalton, J. L.	Market 6415	327 Federal Building
Jackson 1, Mississippi	Lopez, J. M.	3-5221	700 Mississippi Tower
Kansas City 6, Missouri	Brantley, D.	Victor 4686	707 U. S. Court House
Knoxville 02, Tennessee	McCabe, N. H.	4-2721	407 Hamilton National Bank
Little Rock, Arkansas	Morley, D. R.	2-3158	445 Federal
Los Angeles 13, Calif.	Hood, R. B.	Madison 7241	900 Security
Louisville 2, Kentucky	McFarlin, M. W.	Wabash 8851	633 Federal
Memphis 3, Tennessee	Hostetter, D. S.	5-7373	2401 Sterick
Miami 32, Florida	Danner, R. G.	9-2421	1300 Biscayne
Milwaukee 2, Wisconsin	Johnson, H. K.	Daly 4684	735 U. S. P. O., Customs & Court House
Newark 2, New Jersey	McKee, S. K.	Market 2-5613	1836 Raymond-Commerce
New Haven 10, Conn.	Gleason, R. F.	7-1217	510 The Trust Company
New Orleans 12, La.	Weeks, C. E.	Canal 4671	1308 Masonic Temple
New York 7, New York	Conroy, E. E.	Rector 2-3515	234 U. S. Court House, Foley Square
Norfolk 10, Virginia	Kimball, H. M.	4-5441	411 Flatiron
Oklahoma City 2, Okla.	Bryce, D. A.	2-8186	940 First National
Omaha 2, Nebraska	Logan, K.	Jackson 8220	629 First National Bank
Philadelphia 7, Pa.	Fletcher, H. B.	Rittenhouse 5300	500 Widener Building
Phoenix, Arizona	Duffey, H. R.	4-7133	307 W. C. Ellis
Pittsburgh 19, Pa.	Poster, J. B.	Grant 2000	620 New Federal
Portland 5, Oregon	Thornton, J. E.	Broadway 1167	411 U. S. Court House
Providence 3, R. I.	Laughlin, Leo L.	Dexter 1991	510 Industrial Trust Company
Richmond 19, Virginia	Nathan, H.	7-2631	601 Richmond Trust
St. Louis 1, Missouri	Norris, G. B.	Chestnut 5357	423 U. S. Court House & Custom House
St. Paul 1, Minnesota	Rhodes, M. B.	Garfield 7509	404 New York
Salt Lake City 1, Utah	Newman, J. C.	5-7521	301 Continental Bank
San Antonio 6, Texas	Acers, M. W.	Garfield 4216	478 Federal
San Diego 1, California	Murphy, W. A.	Main 3044	728 San Diego Trust & Savings Bank
San Francisco 4, Calif.	Pieper, N. J. L.	Sutter 6367	One Eleven Sutter, Room 1729
San Juan 21, Puerto Rico	Schlenker, A. C.	2-0125	508 Banco Popular
Savannah, Georgia	Brown, D. K.	3-3026	305 Realty
Seattle 4, Washington	Boardman, L. V.	Main 0460	407 U. S. Court House
Sioux Falls, S. D.	Hanni, W.	2885	400 Northwest Security National Bank
Springfield, Illinois	Traynor, D. L.	2-9675	1107 Illinois
Syracuse 2, New York	Cornelius, A.	2-0141	710 Loew Building
Washington 25, D. C.	Hottel, G.	Republic 5226	1435-37 K Street, N. W.

The Teletypewriter number for each Field Office, including the Bureau at Washington, is 0711, except the New York City Office, which is 1-0711, and Washington Field, which is 0722.

Communications concerning fingerprint identification or crime statistics matters should be addressed to:-

Director
Federal Bureau of Investigation
United States Department of Justice
Pennsylvania Avenue at 9th Street, N. W.
Washington, D. C.

The office of the Director is open twenty-four hours each day.

TELEPHONE NUMBER:
EMERGENCY (KIDNAPING)

EXECUTIVE 7100
NATIONAL 7117

WANTED BY THE FBI. . . .



DIXIE VERNON, with aliases

UNLAWFUL FLIGHT TO AVOID PROSECUTION

MURDER

Detailed descriptive information on this person
will be found on pages 27 through 28.

