

**Federal Bureau of Investigation
United States Department of Justice
Washington, D. C.**

Address of

John Edgar Hoover, Director, Federal Bureau of Investigation, United States Department of Justice, at the Commencement Exercises of Kalamazoo College, Kalamazoo, Michigan, on June 14, 1937, at 10 A. M.

ADVENTURES IN SCIENTIFIC LAW ENFORCEMENT

It is indeed with pleasure that I appear here today, not only because of the honor bestowed upon me by this worthy educational institution, but also because I am permitted to know the students of this college and those who now are leaving to begin their great adventure with life.

I am, I believe, qualified to a certain extent to know how much of adventure life can hold. Certainly, when I was working my way through George Washington University, as I understand a number of you have worked your way through Kalamazoo College, there was little intimation that some day my life would be concerned with an incessant battle against a tremendous army of desperate men, or that I should grieve because of my memories of faithful colleagues who have fallen before the ghastly rattle of the machine guns of the underworld.

What I have done, I realize, is what most persons would call adventure. But to me, there has been a far greater one -- the adventure of building, of having dreams and working to see them fulfilled, of carrying month after month and year after year certain visions and

watching them come true, element by element. For instance it was not so many years ago when science, as an important arm of law enforcement, was almost wholly the plaything of the fiction writers. Within the last twenty years, in fact, there have been several of these writers who seemingly created impossible and weird situations, accepted by the reader to be wholly figments of the imagination, never to come true. Yet, today, in the Technical Laboratory of the Federal Bureau of Investigation, mysteries are solved that would have been fertile fields of activity for these fiction writers only a few years ago.

Perhaps I best can tell the story of modern scientific law enforcement by an illustration -- a rather commonplace occurrence which happened only recently in the Technical Laboratory of the Federal Bureau of Investigation. In far away Alaska, a prospector was murdered. Investigative officers, reaching the scene of the crime on snowshoes, arrested two suspects, one an ex-convict whose clothes were blood-stained, and who carried a rifle of the same caliber as that of the bullet which had caused the death; the other a young Eskimo boy who apparently had little to bring suspicion upon him other than that he also had a rifle of the same caliber. This place was far from civilization, and it was impossible, from the evidence to be adduced at the scene of the crime, to determine whether the ex-convict's flimsy story was true. This man admitted that he had fired a shot from his rifle, but said that he had shot, not a human being, but a reindeer, the blood of which had stained his clothing.

In a more unenlightened time in the field of scientific law enforcement, a mystery beyond solution might have developed. However, the results in this case were vastly different. From the far away prospector's cabin in the snowy wastes of Alaska, the evidence was hurried by dog team to the nearest city. There it was placed upon an airplane and speeded across the tundra wastes; then it was sent across the continent to Washington. Arriving, it reached the extensive work-rooms of the Technical Laboratory of the Federal Bureau of Investigation, where are concentrated every possible scientific apparatus for the detection of crime and the apprehension of offenders. Here, white garbed men received the evidence for scientific study. The rifles were examined; shots were fired from them to determine exactly the type of markings they left upon the bullets. The murder bullet itself was placed in what is known as the comparison microscope and matched mark by mark against bullets fired from those rifles.

In another part of the Laboratory, with his test tubes and his chemicals, a scientist went over the clothing of the ex-convict, making first his tests for blood stains and then developing these further by tests to determine whether these stains were caused by blood of a human or of an animal. All of this happened within a comparatively few hours, finally to resolve itself into the flash of a telegraph message back to Alaska where two men, one an ex-convict, the other a young Eskimo boy, were held upon suspicion of the murder of a prospector in a lonely, snowbound mountain cabin. That information was highly revealing, for it showed that the story of the ex-convict,

who otherwise might have been unjustly returned to prison for a crime he did not commit, was true. The blood on his clothes was animal blood, and the markings of his rifle proved conclusively that it could not have fired the bullet which ended the life of the prospector. Then the Eskimo boy was brought in and faced with the solution of a mystery adduced thousands of miles away by white clad men in a great chemical laboratory. There was the evidence, thwarting his attempts to lie his way out of his crime. He could not evade the conclusions brought about through the investigations made at a point across the breadth of the entire continent, and so he confessed that he, the young man who otherwise might have escaped, was guilty.

Throughout America today, our laboratory experts criss-cross to criminal trials everywhere; alert, highly educated, well trained experts of the Federal Bureau of Investigation, in answer to the requests of sheriffs, police, district attorneys, and other law enforcement officers who have enlisted the aid of the Federal Bureau of Investigation in the solution of mysteries which otherwise had baffled them. When these men reach the witness stand, they carry with them the high fidelity of purpose and the unremitting honesty accredited to those who report only upon facts as revealed by microscopes, the test tube, the reactions of fingerprint-revealing solutions, and other scientific apparatus. Often, in these investigations carried on in the Technical Laboratory, the names of suspects are unknown. The evidence or conditions surrounding the case in most instances are unrevealed. Here are men who seek the solutions of problems only

as problems and not in the fevered heat of prejudice. Thus, they typify justice in its highest plane, blind justice, holding the scales to be weighed on the side of the innocent or the guilty only as the evidence presents that weight.

Also, there was a time not so long ago when the criminal fingerprints of the nation could be quartered in a room far less than half the size of the auditorium in which I now speak. At that time, an offender against the law had to do little more than to change his name -- by so doing he changed his identity. It was necessary for law enforcement officers to depend upon a system of measurements and highly fallible physical characteristics known as the Bertillon system. Beyond this was the old, often poorly kept, often deceptive, and wholly incomplete collection of photographs known as the rogues' gallery.

There was no true system of communication between law enforcement officers of various cities, no central place to which they could turn for aid in their search for a wanted man.

It has been a great adventure to assist in changing this picture. Today, in the Identification Division of the Federal Bureau of Investigation, covering nearly 100,000 square feet of floor space, encompassing row after row of filing cases, where work man-hunters of the microscope, there are gathered more than seven and a quarter million sets of fingerprints of the world's criminals, received from more than 10,000 contributing agencies. Thus, the entire world has

been transformed into a tremendous nervous network, shuttling its impulses of crime detection with a rapidity which again accounts for stories of science in apprehension that would have amazed the fiction writer of 20 years ago.

For instance, in the kidnaping of Edward G. Bremer of St. Paul, Minnesota, law enforcement officers of a few years ago might have been at a loss to learn the identity of the perpetrators and thereby fail in their efforts to track them down. But in seeking out every available bit of evidence as presented in this case, a gasoline can was found, as a result of a search organized by Special Agents of the Federal Bureau of Investigation, and forwarded to the Technical Laboratory in Washington. There, scientists, by the use of chemical tests, developed the fact that upon this gasoline can was a single fingerprint which, under the influence of chemicals, stood out stark and revealing. Immediately, efforts were transferred to the Identification Division and centered upon the Single Fingerprint File, wherein are gathered for purposes of easy identification the individually classified prints of each finger of more than 14,000 of America's most desperate criminals. We felt that the band which had kidnaped Edward G. Bremer was one including vicious members of a desperate gang. If this were so, their fingerprints would be in this filing case. So the search began, through card after card, running onward through one file and then another and into a third, and there stood emblazoned the fingerprint which matched the one on the gasoline can. It was a print of a finger of Arthur "Doc" Barker, a

member of a murderous gang of outlaws, thugs, and bank robbers which had pillaged and plundered throughout the Middle West, leaving a trail of crime and blood behind them. We trailed "Doc" Barker. We trailed his brother. We trailed their mother, who had reared them in a life of crime. We trailed his companions, Volney Davis, Russell Gibson, Bill Weaver, and others, finally to that "Public Rat Number One" whom we captured at New Orleans about a year ago, Alvin Karpis, in all bringing about the arrest and conviction or eradication by death of more than 35 men and women who directly or indirectly had played their part in the kidnaping and holding for ransom of an American citizen. That, to my mind, was the culmination of a great adventure.

In fact, the every action of the Federal Bureau of Investigation is built upon a standpoint of scientific adventure. In the selection of its personnel, there is nothing haphazard. Every man is chosen for his peculiar ability to become a Special Agent of this Bureau. He is carefully selected; scientifically trained; schooled in the science of fingerprints, taught how to classify them, how to find them, how to develop them at the scene of a crime. He is taught the use of the microscope, the importance even of dust and particles of earth as revealed in the cuffs of a suspect's trousers, and perhaps by microscopic comparison with the dust and soils of various parts of the country, to place him at the scene of a crime. He is taught the importance of a scientific knowledge of firearms, so that instead of being a "gun toter," he is a man who realizes his respon-

sibility with these firearms; the necessity for their remaining in their holsters until danger of death brings them forth in contest with the underworld. He is taught the science of surveillance, of surrounding hide-outs, of attack upon barricaded fortresses of gangdom. Above all, he is taught the science of tiny things and the importance of the correlation of these tiny bits of information into a comprehensive whole from which a wealth of evidence may be adduced. It is, I believe, largely because of this scientific attention to details that of the persons who go to prison as the result of activities by the Federal Bureau of Investigation, 90% plead guilty rather than to elect to stand trial. Surrounded on every side by evidence which they know will convict them in court by the scientific building of impregnable cases, they have done a quite human thing, best expressed in the words of Volney Davis, the kidnaper: "Why should I lie to you? You know more about me than I can remember about myself. I admit this kidnaping. It would be no use for me to deny it."

It is this building of tiny integrals into a massive whole of evidence which also allows the Federal Bureau of Investigation to convict 96 per cent of all persons whom it takes to trial. Because of these efforts in the last three years, the Federal Bureau of Investigation has sent approximately 12,000 vicious offenders to prisons for crimes against Federal statutes. In the pursuit of these offenders it has been necessary to pursue many of them from one end of America to another. As an example, I can cite the case

of "Machine Gun" Kelly who, hotly pursued, fled for thousands of miles before we caught him. Again, there is the case of William Mahan, the kidnaper of young George Weyerhaeuser, of Tacoma, who eluded us for twelve months, but who finally fell before the steady encirclement of facts and scientific investigation. In case after case, the chase has been long and arduous and expensive, with the result that in these three years, it has been necessary to spend some twelve million dollars for the apprehension and removal from society of exceedingly dangerous members of the criminal world. However, I am more than happy to state that in the spending of this twelve million dollars, the Federal Bureau of Investigation has been able to return in savings, in fines, in return of stolen goods, a total of more than ninety-three million dollars to the taxpayers of America. That also has been a great adventure and a most profitable return to the citizens of the nation for their investment in efficiency.

I hope that I have made it clear that all this scientific endeavor is not selfishly kept within the confines of the Federal Bureau of Investigation. I already have touched upon the efforts of the Technical Laboratory and the eagerness with which it aids any law enforcement body desiring scientific examination into material evidence. I hope also that I have made it plain that the Identification Division is at the service 24 hours of the day to every one of its more than 10,000 contributing agencies. I shall explain exactly how that is done. For instance, it is quite possible that some man may be arrested today by your local law enforcement agencies of Kalamazoo.

He may present a very plausible story. He may say that his name is John Jones. He may say that he lives in New York. He may name a number of imaginary facts and incidents in an effort to prove that he is only a wandering young fellow, accidentally taken into the hands of the law. There was a time when it was necessary for a local law enforcement agency, to the best of its limited ability, to attempt to trace first of all this man's true name, then his alleged identity, then his alleged home, and his alleged friends, and his alleged story of his life. Through the efforts of the Identification Division of the Federal Bureau of Investigation that no longer is necessary and that vast expense is done away with.

The local officers of the Kalamazoo Police Department know that they have one infallible means of telling whether John Jones has told the truth about his possession or lack of a criminal career. They need only to take his fingerprints and forward them to Washington. Once these prints have reached the Identification Division, highly trained man-hunters of the magnifying glass follow them into the filing cases, often searching as many as 400 or 500 prints in a minute through the use of especially constructed selecting machines, and then we know and the Kalamazoo police know whether John Jones is really John Jones, an innocent young fellow, or whether he is a thief, a holdup man, a robber, a murderer, or a badly wanted convict, an escape from some penitentiary.

Beyond even this, the Federal Bureau of Investigation constantly reaches outward in its efforts to disseminate the science of

law enforcement. One of the greatest and happiest of our adventures has been the National Police Academy, as instituted with the aid of that far-seeing man of scientific law enforcement, Homer S. Cummings, Attorney General of the United States. To this school are invited forward-looking officers from police departments throughout America. We receive them with eagerness. By having these men come personally to Washington, we can teach them that there is no magic in efficient law enforcement, no Sherlock Holmes' theorizing or fictional deduction, but that before science all things must fall, including the ramparts of criminality. It has been our greatest pleasure that following the training of these men in which they are taught everything hitherto given to the training of our own Special Agents, they have returned to their various departments, to become instructors of their fellow-officers, or to be promoted, or to be given the task of guiding the destinies of their departments as Chief or as Commissioner.

Beyond all these adventures, we hope for even a greater one. That is the enlistment of every worthwhile citizen of America in a great coalition of a desire for education and advancement in the knowledge of scientific law enforcement. It is the most important subject in all America. I hope the time will come when every educational institution will include a course in law enforcement as a part of its curriculum. This does not necessarily mean that students will be trained only for jobs as officers, although the greatest day for our nation will be when all of law enforcement is placed upon a

career basis, with merit and ability and integrity and ambition as the prime requisites for an officer's appointment. Supporting these men, however, there should be a knowledge on the part of every citizen of what good law enforcement consists, and to know this one should know also of what criminality consists, of what goes to cause crime, and of what ingredients municipal corruption, which so often stultifies good law enforcement, is composed.

The student who learns these things acquires an immense number of weapons which will work unfailingly for his protection and well-being and happiness in later years. He will learn his future duties as a parent and the obligations devolving upon him in the rearing of children along lines of kindly discipline, of understanding of their problems, of unswerving fealty that he may build within this child the traditions and ideals of clean living and of law observance.

We are prone today to decry the immorality of youth, when we learn that 17% of all our crime is committed by persons of less than voting age. Rather, however, we should look upon the truth of this situation which is to be found in the failure of parenthood to properly train the youthful mind into paths free from criminality. Today, there are in America over 4,300,000 criminals actively at work, plundering, marauding and murdering. There is an aggregate of over 1,330,000 serious crimes each year, which means that every twenty-four seconds there is a felonious infraction of our laws, including robbery, assault, arson, or murder. In addition, over fourteen million minor crimes are committed each year, not including

traffic and liquor law violations. Each setting sun leaves its final glow over a country supposed to be the most enlightened of all the world yet, each day and every day witnesses a total of 36 deaths at the hands of murderers. Thus, we gain an understanding of the terrific scope of criminality and the solemn duty of the citizen in his obligation to learn more of what that criminality consists and what can be done to eradicate it. Our greatest crime in America today is our toleration of crime -- toleration of the conditions existing throughout the nation which help to create a national crime bill estimated at fifteen billions of dollars each year!

Certainly, it seems to me that when a condition exists in which 3 out of every 4 persons are potential victims of crime, at least those 3 out of 4 persons should do something for themselves in an attempt to evade the consequences of crime. This includes, first of all, knowledge, training, understanding, and then the determination to make use of this knowledge in a practical fashion. For instance, if more persons knew the facts concerning proper law enforcement, they would be able to speak more articulately against political corruption, which, when it exists, absolutely stultifies and nullifies the efforts of any law enforcement agency. No such agency can be efficient when its personnel is appointed, not as the result of what they know, but because of whom they know. No organization can properly perform its task when it is handicapped by lack of equipment, when it does not have sufficient money through appropriation to pay proper salaries, when it has antiquated equipment and perhaps

antiquated minds directing its activities. When these occur, it is due not so much to the activities of so-called corrupt politicians, as it is to the non-activity of lethargic citizens who permit these corrupt politicians to enter office and gain control of a municipality or community. This lethargy all too often comes about through a lack of education and a lack of knowledge of what constitutes the right way of doing things. The college or other educational institution which pounds upon the problem of teaching its students how to know good government, how to know good enforcement, will be a contributing factor to a greater day of welfare in America.

The young person of college age, filled with ambition and enthusiasm, who is well armed with information about what constitutes good law enforcement, will be able with his fellows to condemn inefficiency and at the same time to stand stalwartly behind capable efforts at public protection. And, indeed, if there were more persons who would stand up and fight for good law enforcement, who would get behind good officers, who would speak for them and make public outcry against any efforts to nullify their activities, there would be a steady improvement in our American law enforcement. The underworld, through various agencies, all too often has been allowed to sneer at the efforts of honest men, to support the activities of narrow-minded or jealous bureaucrats, to aid persons seeking self-aggrandizement in tearing down well-founded institutions, thereby making the underworld the gainer.

It seems to me that it should be a great adventure for

any youth to learn all these things, to realize that he is fighting in a wide-flung battle against an army of over 4,300,000 enemies. It should seem a great adventure, for instance, to be able to place the finger of discernment upon the shrewd activities of underworld characters possessing influence and power, who seemingly are able to laugh at the law, to outwit the courts, and to change prison bars to putty.

Every youth who leaves college should do so with the determination to make his city or community a better place in which to live. To accomplish this, he first should be a friend of good law enforcement and an arch enemy of inefficiency and corruption. He should inquire deeply into the activities of certain cliques of political or gangster crews, who seem able to set municipal ordinances aside and gain for themselves unlawful money by unlawful activities. He should possess sufficient acumen to be able to intelligently inquire into the reasons why the poor are so easily prosecuted and so quickly sent to prison and so infallibly held there, while the influential, with the aid of their shrewd and often unscrupulous attorneys are able to delay court action, to persuade witnesses to leave the community, to sway the opinions of a judge or of a jury, and even in the event of conviction to find that the pathway out of prison is far shorter than the trail they have followed leading to it.

It should be a great adventure, for instance, to evaluate properly the various opinions concerning parole. We have heard much of this subject. It is a matter of prime importance and it affects

greatly those who may be victimized by the more atrocious of crimes. I am a friend of the principle and theory of parole, as I feel certain you are. But I believe that primary consideration should be given to the law-abiding citizens of our nation and that convicts, such as the Dillingers, the Barkers, the Suhays, and the Karpises, who could not have been made decent members of society, should not have been the recipients of futile clemency which has resulted in the payment of a terrible toll by innocent citizens. In all too many of our states the administrators of the parole systems are incompetent and short-sighted. The cause of our more heinous crimes, murders, attacks by degenerates, slayings by perversion, and other horrible crimes, are all too often found lying at the slimy doorway of inconsiderate parole.

It should be a great adventure for you as the young people of today, who will be the leaders of tomorrow, to use the education and the intelligence which higher teaching has given you to delve into such subjects, to appraise them, evaluate them, judge them, and do something to prevent their maladministration by hysterical or monetarily inclined persons. As I said at the beginning, life has been a great adventure for those of us who have been privileged to play a pioneering part in the field of progressive law enforcement. I hope we shall continue into more and greater ones, and in this hope I can offer you no happier wish than that the same sort of adventures in good citizenship be allotted to you as you go forth today from a "Fellowship in Learning" to a Fellowship in Living.

* * * * *