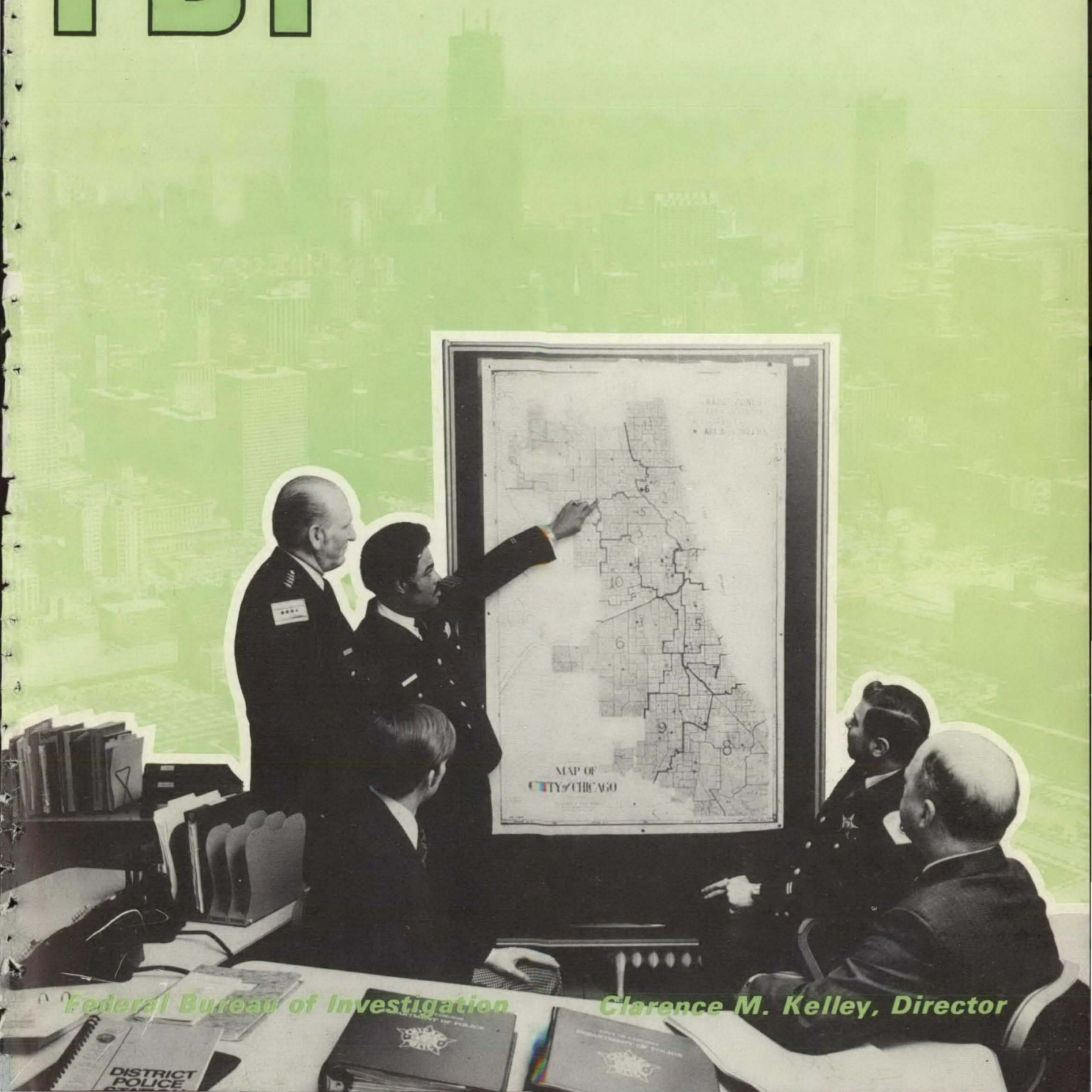


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Clarence M. Kelley, Director

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THE COVER

This month's cover photo dramatizes the immense scope and impact police planning and research operations can have on a city—in this case, Chicago, Ill. Inset are Superintendent of Police James M. Rochford (standing at extreme left) and members of his department's Research and Development staff. See article beginning page 2.



Message from the Director . . .



JUNE WILL BE A MONTH of great decision for a large number of graduating youths. They will face the frequently hard prospect, for most persons, of choosing and pursuing a career. To many, this decision may be the most important of their lives.

I am often asked for career advice and have no hesitancy in recommending to any interested young person a career as a law enforcement officer. The profession has given me a great sense of personal satisfaction. Although it is both a livelihood and an adventure, law enforcement is much more than just these. For me, it has been a rewarding opportunity to do something special with my life. Law enforcement has done something special for the lives of many others and can do it for many more.

The law enforcement profession offers two great qualities in life which have captured the imagination of ambitious and perceptive youth during all periods in our history. These are the excitement of challenge and the satisfaction of meaningful accomplishment. There is rarely a day when a law enforcement officer does not find both.

If we look far ahead, as youth certainly must, these two qualities—challenge and accomplishment—take on huge dimensions for the future. There are, for example, few greater long-range threats to our society than the looming specter of crime. And there is no more worthwhile goal than the just, orderly, secure, and creative society that respect for the law can inspire.

Young people should put aside the derring-do television, cinema, and novelist's image of the law enforcement officer. While there is plenty in police work to reinforce this stereotype, the law enforcement mission is too profound for just courageous, decisive, and dynamic individuals. It also needs persons with intelligence, compassion, and vision.

For those young people who earnestly want a better tomorrow for themselves and their country, there are few greater opportunities to work for it than by enlisting their talents in the law enforcement effort. Of the priorities facing our Nation, the search for a more lawful society is surely one of the most vexing.


CLARENCE M. KELLEY
Director

JUNE 1, 1975

"The police administrator can no longer afford to question whether he should have a specialized planning unit, but rather, he must ask if he can afford not to have one."

PLANNING: THE DYNAMICS OF POLICE ADMINISTRATION

By
JAMES J. ZURAWSKI
Director
and
SGT. EDWARD C. BROOKS
Research and Development Division
Police Department
Chicago, Ill.



Flanked by Director Zurawski on his right and Sgt. Brooks on his left, Chicago Police Superintendent James M. Rochford (second from right) discusses planning study with the Research and Development staff.

In 1967, after considerable research and effort, the President's Commission on Law Enforcement and Administration of Justice reported with emphasis that:

"A police force cannot be effective if it is administered on a day-to-day crisis basis. It needs plans: contingency plans, for example, about how to handle a visit by the President or how to capture an armed desperado holed up in an apartment; operational plans about how to deploy men in various neighborhoods at various times of day or how to deal with the problem of apartment burglaries; long-range plans about improving the quality of personnel, installing new equipment or controlling widespread vice, budgetary plans, community-relations plans, technological plans, and plans of many other kinds. It needs not only to develop new plans but to review continually the operation of plans already in effect and to amend or discard them if necessary. To do this kind of planning to best advantage, a department must first engage in research and analysis."¹

It is unfortunate that even after the publication of this report more than 8 years ago and the many subsequent statements and articles supporting its findings—not the least of which is the "Report on Police" by the National Advisory Commission on Criminal Justice Standards and Goals—there are still many police department administrators who do not perceive an advantage in using a formal planning process. More and more, during this period of inflation, traditional sources of revenue are becoming overburdened, and new sources of revenue are becoming harder and harder to find.

Therefore, every police administrator has an obligation to his local governmental administration and the community he serves to deploy all the resources of his department in the most efficient way possible without sacrificing effectiveness. The police administrator can no longer afford to question whether he should have a specialized planning unit, but rather, he must ask if he can afford not to have one.

For the benefit of these administrators, it might be well to review some of the critical elements of the police planning and research function and expose them to practical situations. An examination of some of the many books and articles devoted to police planning reveals a very definite consensus regarding the purpose, methodology, and overall nature of the planning process. It also becomes obvious that a number of questions which arise in the minds of police administrators require definitive answers before they can be convinced of the utility of a planning unit.

Let us examine some of these questions in order.

What Is Planning and What Does a Planning and Research Unit Do?

The concept of planning has been defined in many ways by authorities on the subject. O. W. Wilson defines it as a process of finding facts and analyzing them to determine present and future needs and then developing procedures and resources to meet these needs.² William H. Newman characterizes it simply as "deciding in advance what is to be done; that is, a projected course of action."³ According to comprehensive research conducted by Michigan State University's School of Police Administration, planning involves the "marshalling of facts relevant to solving particular problems, evaluating alternate solutions,

and detailing in advance action to be taken toward implementing desired change."⁴ By these definitions alone, it becomes obvious that all police agencies, regardless of size, need and utilize the planning process. Planning in large departments is usually handled by a specialized group of well-trained individuals, but in small departments it may be handled by the chief of police or his deputy. The fact remains, however, that the need for planning is present in all size departments, differing only in volume and form. Any police department that is well administered and successful invariably has a planning and research unit.⁵ Unfortunately, however, there still are police administrators who allow operational personnel to deal with highly sensitive department problems and dispose of them by utilizing individual judgment. Morale, budget, efficiency, and public confidence in the organization are apt to be severely damaged as a consequence.

Specifically, planning and research units should do many of those things for the chief that he does not have the time to do himself. Depending upon the size of the department, this may include a wide range of responsibilities. While there are no standard functions for planning units, the focus of their efforts will be to examine, in minute detail, every aspect of police organization, operation, and management; and by analysis and contemplation will attempt to increase the effectiveness of police efforts as well as improve the economy of their operations at every level.⁶

What Can Planning Do for Management?

Even in the smallest departments such concerns as manpower needs, operating costs, workload, crime rate, and citizens' calls for service are constantly changing. The demography of cities and communities is dynamic

with respect to size and composition. All of these changing situations should continually be evaluated and reviewed during the process of planning and modifying the goals of the police agency.⁷ If any planning unit is to be effective, it must be dedicated to change; and if it is going to improve things, it invariably must change them. This includes changing policies, forms, procedures, and everything that seems capable of improvement. The police, like most other persons, tend to resent change, but it is surprising how rapidly officers come to accept frequent change if an adequate effort is made to explain it and enlist them into the program for improvement.⁸

The police administrator himself should specifically determine the long-range, intermediate, and short-term plans for his organization and ensure that they receive his best efforts toward implementation. Few chiefs of any size department have the time to conduct comprehensive trend comparisons and crime analyses, compute workloads and assignments, or correlate crime patterns, evaluate programs and measure productivity, etc. Thus, it is imperative that he delegate this responsibility to someone else.⁹ It is commonly believed that four general types of planning are required in fulfilling the police agency's responsibility. They are (1) management planning, (2) operational planning, (3) procedural planning, and (4) tactical planning. Each of these types may enjoy a special position in large departments; but in small departments, because of limited resources, they can be integrated into one operation.¹⁰

Management planning is directed toward setting overall department policy and determining departmental goals. Management plans must deal with budgetary and personnel policies and problems like salary considerations and standards for recruiting,

"If any planning unit is to be effective, it must be dedicated to change; and if it is going to improve things, it invariably must change them."

selecting, training, and promoting personnel.

Operational planning involves the systematic planning of the general operations of the department, such as deciding shift assignments, patrol size, schedules, and level of support services. Too often, planning in this area is prompted only by crisis.

Procedural planning consists of determining, after careful consideration, sound, written, and clear field and administrative procedures that will promote optimal organizational efficiency. These procedures will require frequent and regular review in order to keep them up to date. Experience has demonstrated that police departments practicing this review procedure have better communications and control systems and promote personnel safety.

Tactical planning involves the creation of plans that will be effective in the event of emergencies and crises such as civil disorders, weather disasters, airplane crashes, nuclear attack, etc.¹¹ The social turmoil of the sixties demonstrated very vividly to police departments all over the Nation that the need for tactical planning is vital. This era gave rise to massive public demonstrations and militant civil disobedience by groups intent upon police confrontations which most police agencies were totally unprepared to handle.

How Can Management Justify Planning Units to the Legislative Body?

Planning and research can be very expensive, but the great achievements made in public and private ventures illustrate that it has invariably paid

off. The space program is perhaps the most vivid example. The potential which planning holds for a police department is endless.

The chief who keeps abreast of change in his community finds it necessary to constantly engage in the process of evaluation and revision. When he finds it necessary to request additional manpower or equipment in the annual budget, he must be able to appear before the legislative body and justify it. He should be able to explain it in terms that are meaningful and relevant to those who must make the decision on appropriating the funds for police planning and research.

One of the most convincing approaches that police administrators may use with city councils or State legislatures is to simply demonstrate the utility of planning and research units by citing successful examples of their operations.

Some Chicago Police Department examples that illustrate this point follow:

1. As a consequence of civil disorders that occurred in the City of Chicago during the late sixties, the Planning and Research Unit began a study of the situation to determine strategy and solution. The study proved to be an exercise in simple logic. The cause of the high escalation of mass disorders at scenes of civil demonstrations was due primarily to the fact that sufficient numbers of police were not responding to the scene early enough to be an effective deterrent factor. After the

"The social turmoil of the sixties demonstrated very vividly to police departments all over the Nation that the need for tactical planning is vital."

"The rapid increase in the cost and complexity of law enforcement in recent years has made systematic planning a necessity in even the smallest departments."

problem was defined, and thoroughly researched, the department's emergency response plans were developed.

2. The Research and Development Division planned and developed a police period year for police operations that involved dividing the year chronologically into 13 28-day periods. This allows periods with similar weather conditions, hours of the day and night, and times of the year, to be more accurately and realistically compared criminologically from year to year. The new system has additionally improved the department's administrative process tremendously, including uniformity of work and day-off schedules, furloughs, and time-keeping responsibilities.

3. Another example of successful planning is the Chicago Police Service Survey Program. In order to provide accurate and up-to-date information, the Research and Development Division designed a survey program to determine exactly the quantity and quality of service rendered to the public. The survey involved a procedure by which every citizen who called for or received any kind of police service was automatically sent a followup survey card upon which he was requested to document his reactions to the service received and forward the card to the department Research and Development Division for analysis. The department discovered that it rated a satisfactory response in approximately 95

percent of the returned cards.¹²

4. Another good example is the Time Scheduled Court Call System. This system was developed when it became obvious that improved procedures were needed to decrease the number of hours that police officers and witnesses spend in courtrooms awaiting the call of their cases. This process resulted in a waste of public funds and police manpower. The Research and Development Division, in cooperation with the Cook County Circuit Court, developed and implemented an innovative time-scheduling program that lessens considerably an officer's time in court and saves thousands of man hours.

5. A recent assignment of the planning unit involved the mounting load of departmental paperwork. Early in 1974, the department began experiencing very serious backlogs, for example, in the handling and processing of field case reports. Research by planning personnel indicated that 17 percent of these reports involved unfounded cases. The elimination of these reports alone has saved the department almost \$400,000 and 51,395 man hours. Also, the function of reproducing the required number of copies of case reports has been decentralized to area criminal investigation units. Much faster retrieval of statistical data resulted. The research produced a new report form which has eliminated a variety

of separate forms that had previously been used.

As can be seen from the examples, there are several concrete ways in which a chief executive can demonstrate the viability of planning and research units. They promote economy through the savings of money or more efficient use of personnel, a department's most precious asset. They can resolve issues in doubt as was accomplished in the survey of police service quality. They can develop procedures which will be useful in emergency situations.

The chief has several means at hand to convince the "keepers of the purse" of the utility and necessity of these units.

How Should Planning Units Be Organized and Staffed?

Although effective planning can occur without the establishment of a formal planning unit, it is a reasonable assumption that superior results will take place with one. The rapid increase in the cost and complexity of law enforcement in recent years has made systematic planning a necessity in even the smallest departments. The chief of the department should delegate this planning responsibility to others in a way which ensures the fulfillment of the department's objectives. In doing this, he must keep a number of factors in mind. First, the process of selecting a person to direct the planning process must focus on individuals who are capable of translating and presenting the chief's policies and goals as the chief would himself. Second, the staffing of the unit should involve some basic selection criteria; the planning staff should be capable of collecting facts and presenting them

"... the organization of the planning unit must be flexible enough to encourage self-motivation and individual initiative while providing the structure and review necessary to maintain productivity."

clearly. A good planning officer possesses a broad understanding of skills and techniques of planning, has knowledge of the subject matter to be analyzed, and is creative and mentally alert. Third, the relationship of this unit with the chief is a key element of its operation. It should be remembered that the unit is merely an extension of the chief himself and that it serves his ends and that of the department. The unit should be provided an appropriate work environment and should be encouraged by the administration to utilize innovation and experimentation.¹³

A chief in selecting a planning staff must remember that some persons will not make good planners. Many police chiefs themselves fail miserably in this responsibility and are successful only because they delegate this function, totally, to personnel in whom they have great confidence.

Planning units should operate without an official rank structure in the sense that the contributions of each member are equally important. While this is a desirable goal, it is difficult to obtain in the structure of most police departments. The responsibility rests with the head of the police agency to formulate this objective in a policy statement. If this rankless approach is not followed, a series of dysfunctional effects and conflicts may occur including unnecessary project or task review, abuse of rank authority, and the inability of the unit to attract competent staff because of rank conflict.

Personnel who staff the planning unit must also have an abiding confidence in their ability. They must constantly remember that they are extensions of the department head, and

their work must reflect the will of the top administrator.

Thus, the organization of the planning unit must be flexible enough to encourage self-motivation and individual initiative while providing the structure and review necessary to maintain productivity. Within this atmosphere, the attributes of the planner—integrity, honesty, ability to compromise, loyalty, and pride—and the combination of individual talents will generate a healthy, efficient, and viable unit.

Conclusion

Planning is essential if an agency is to achieve its goals. No one executive is capable of performing all of the planning functions of an organization. The creation of planning and research units in police departments of all sizes is necessary to adequately meet the challenges that confront the law enforcement profession.

FOOTNOTES

¹ Report of the President's Commission on Law Enforcement and Administration of Justice, "Task Force Report: The Police," U.S. Government Printing Office, Washington, D.C., 1967, p. 49.

² Wilson, O. W., and McLaren, Roy Clinton, "Police Administration," 3d, McGraw-Hill, Inc., N.Y., 1972, p. 155.

³ Newman, William H., "Administrative Action," 2d, Prentice Hall, Inc., Englewood Cliffs, N.J., 1963, p. 15.

⁴ School of Police Administration and Public Safety, "Training Bulletins for Planning and Research Units in Medium Sized Police Departments," Michigan State University and LEAA, U.S. Government Printing Office, Washington, D.C., 1968, p. 2.

⁵ Butler, Sgt. Howard S., "Is Research and Planning Necessary," Law and Order, March 1970, p. 73.

⁶ Ibid.

⁷ School of Police Administration, Training Bulletins, p. 1.

⁸ McDonnell, R. E., Address to a Police Planning Workshop, IACP Convention, "The Police Yearbook, 1966," IACP, MD 1966, p. 46.

⁹ Ibid.

¹⁰ School of Police Administration, Training Bulletins, pp. 2-6.

¹¹ Ibid., p. 47.

¹² Rochford, James M., "Determining Police Effectiveness," FBI Law Enforcement Bulletin, October 1974.

¹³ School of Police Administration, Training Bulletins, p. 6.

*Memo Conger to Dacker 3:20-25,
"Preliminary Annual Crime Figures
Calendar Year 1974 over 1973 Uniform
Crime Reports" and Press Release*

CRIME INCREASES—3-30-74 1974

According to preliminary figures contained in the FBI's Uniform Crime Reports, serious crime in the United States rose 17 percent in 1974. The crime statistics are based on information furnished by city, county, and State law enforcement agencies.

The violent crimes of murder, forcible rape, robbery, and aggravated assault increased 11 percent as a group. Robbery increased 14 percent, while forcible rape and aggravated assault each rose 9 percent. Murder was up 5 percent. Property crimes, as a group consisting of burglary, larceny-theft, and motor vehicle theft, increased 17 percent. Larceny-theft rose 20 percent, burglary 17 percent, and motor vehicle theft 4 percent.

Suburban law enforcement agencies reported a 20-percent rise in the volume of crime, while the rural areas reported an increase of 21 percent. Cities with 100,000 or more inhabitants reported an increase of 13 percent.

Geographically, the Southern States reported a 21 percent rise in the volume of Crime Index offenses. Crime in the North Central States was up 17 percent, in the Northeastern States 15 percent, and in the Western States 13 percent.

*A View of Police Productivity**

At a recent science fair in Virginia, a high school student demonstrated a dramatically simple way for archeologists to pinpoint the age of objects through radioactivity.

Without benefit of a lush research budget or a sophisticated laboratory, the student developed a process involving four flasks, a separation funnel, tubing, a balloon, and some glassware.

One enthusiastic scientist was quoted in the press as saying the student had advanced the study of archeology 50 years by putting together effective apparatus archeologists could actually take into the field.

I think that young man's work exemplifies productivity.

With a minimum of resources, he tackled a difficult problem and whipped it—efficiently, effectively, and with obvious benefits for society.

We in law enforcement also seek to accomplish more with our resources—efficiently, effectively, and with maximum bene-

fits for the people we serve.

That is why we are gathered here today.

But one of the problems we confront is that police productivity is not nearly as easy to assess as the work of that gifted young scientist in Virginia.

Yet it is vitally important to us and to society that we properly define police productivity, develop reliable benchmarks to measure productivity, and set about improving our productivity.

Why is this so essential? The reasons are obvious, I'm sure, to this knowledgeable audience.

We need but to consider the continuing steep climb in serious crime in our Nation—17 percent last year, probably a national record.

We need only consider the massive amounts of money being poured into the criminal justice system and anticrime efforts at the Federal, State, and local levels.

It has been estimated that the Federal Government will spend \$110 million next fiscal year on

crime research and statistical data.

By July 1, the Law Enforcement Assistance Administration alone will have distributed about \$4.1 billion in Federal funds during the 7 years of its operations.

The cost of police services in our country reportedly has risen from \$3 billion in 1967 to \$8.6 billion in 1974.

Americans today are not only feeling the crunch of inflation and unemployment problems, but are being gouged by increasing financial losses caused by crime.

The Commerce Department recently reported that crime losses suffered by businesses—the supermarket, the department store, the neighborhood drugstore—cost each consumer an extra \$1.71 a week in 1974.

It was estimated that businesses lost \$20.3 billion due to theft, armed robbery, shoplifting, bad checks, and other criminal acts.

Crime has become an insatiable despot, demanding ever-in-

**This is an address given by Hon. Clarence M. Kelley, Director, Federal Bureau of Investigation, before the Police Foundation National Conference on Productivity in Policing, Washington, D.C., April 15, 1975.*

creasing tribute from Americans—tribute in the form of tax dollars, tribute in the form of billions in cash drained from our economy by criminal activity.

Spending in the United States for police, courts, and prisons increased from about \$3.5 billion in fiscal year 1960 to an estimated \$13 billion in 1973.

I need not point out to this assemblage the painful financial pinch many of our municipalities are in today. Traditional sources of revenue have been squeezed to their limits in many cities; still, some face serious budget deficits.

City payrolls nationwide have increased 164 percent since 1963, and some metropolitan cities have found it necessary to lay off large numbers of employees.

These stark facts clearly spell out in large bold letters the need for law enforcement to examine prospects for improved productivity. And the need seems particularly acute at the municipal level, where urban deterioration and its constant companion, rising crime, are common afflictions for which no one has found a sure-fire remedy.

Now we could not honestly characterize relations between the professional police executive and governing groups at city hall as invariably warm and tender.

The interests and objectives of the police executive and those of city fathers, in various places at different times, often have been divergent.

But they cannot be so now with the need for crime reduction so terribly urgent.

Those of us who have been

fortunate enough, as police chiefs, to enjoy, as I did, good working relationships with city hall, know what an invaluable commodity that is.

The point is, now, more than ever before, law enforcement executives at all levels and the governing officials they deal with must work together earnestly, with mutual understanding and with resolute purpose.

This conference is clear evidence that the police profession is willing, once again, to put itself on the spot. Productivity concepts demand that every aspect of police management and police functions be subjected to objective and penetrating evaluation.

It is a salutary thing that we do so. Our society will benefit from it.

Despite what our critics may say, I don't know of any other field of endeavor in which so much effort has been put into discovering new ways to achieve better performance than in the police profession. There are some professional fields in which relatively little effort has been made toward betterment.

Now it could be argued that we cannot achieve greater productivity in policing without corresponding improvement in the prosecutive, judicial, and correctional functions of the criminal justice system.

Certainly productivity in our field hinges to a certain extent on the efficiency and effectiveness of other members of the criminal justice family.

But this Police Foundation conference eloquently proclaims that we do not seek sanctuary in that fact.

What we seek are answers, not excuses.

We recognize that while the lawman's investigative and arrest functions are but the first steps in the judicial process, every other step in that process is dependent upon them.

Rather than say we cannot guide our own destinies because of our interrelationships with other criminal justice activities, we are declaring, in such conferences as these, that we are willing to expose and to correct our own failings first.

But we must hope and trust that our message will stimulate greater interest in improving other facets of the criminal justice system.

Attorney General Levi told an FBI National Academy graduating class March 20 that a sluggish criminal justice system loses its value of deterrence.

And we might add that deterrence is most certainly a measure of productivity in the criminal justice field.

It is significant to me that the productivity concept involves study and evaluation by people directly involved in our field.

There are, in this gathering, professionals rich in the experience and knowledge needed to insure practical suggestions will evolve from your discussions.

There are people here who deal day-to-day with such problems as training, personnel management, patrol and visibility factors, response times, and optimum use of resources.

More and more, practical views prevail at conferences such as these rather than abstruse theory. This is essential.

I can recall an earlier day when this was not true; for ex-

ample, when police-community relations programs were introduced to our profession and experts outside the law enforcement field took command.

Certainly we benefit from consultation with representatives of the various scientific disciplines. But we have learned that for new programs to be implemented effectively in our field, the professional police officer must take part in formulating them.

This is the fundamental principle upon which I have developed my participatory management policy.

And it is a guiding principle in the work of the FBI's Planning and Evaluation Division—the primary productivity team of our operations.

FBI Planning and Evaluation people currently are deeply involved in a host of studies in such areas as use of manpower, computerization, evaluation of personnel performance, and case management.

Now these projects are not just once-over-lightly studies aimed at impressing the public or those who oversee our agency. These are penetrating, comprehensive studies in which we are synthesizing input from outside experts as well as agents in the field.

Several of our field offices are participating in experimental programs in one or more of these areas; we are building a reliable data base for our conclusions.

And I assure you that when clear evidence is obtained that change will improve our productivity, change will be forthcoming.

On the other hand, it seems obvious we cannot engage in

wholesale abandonment of methods that have survived the test of many years of practical application.

For example, we may find data on arrests, cases cleared and convictions irrelevant in assessing some areas of productivity but quite essential in other areas.

And as problems of productivity become better defined, I think it mandatory that careful assessments be made to determine the value of various types of statistical data in solving these problems.

I would urge you to examine closely the statistical programs available, particularly in the area of crime data collection, to determine their validity as well as their utility.

In other words, there must first be a determination of the problems, then consideration of the data relevant to solving the problems, and an appraisal of the cost effectiveness of the data collection program.

It is the police agency's success in approving productivity that will be affected by the selection of data sources, and the police executive must not permit himself to be steamrollered into using inappropriate or unreliable data programs.

I personally think our Uniform Crime Reports have a definite contribution to make in improving law enforcement productivity.

Victimization studies certainly have value in assessing crime problems; but it seems to me that offense data derived from police records generally is better suited to help us in assessing police activity.

Nevertheless, from the standpoint of police productivity, there is a very clear message in victimization findings to date. The message is that the reasons victims give for not reporting crimes often indicate a lack of confidence in their law enforcement agencies.

Regardless of whether this lack of confidence is justified, we cannot ignore its implications.

And I feel very strongly that a mandatory objective of improving police productivity must be to inspire greater public confidence—to achieve greater credibility.

In many ways, achieving greater credibility and public respect are synonymous with achieving greater productivity.

Consider that everything we put into a police officer's training curriculum, from the day he arrives at the academy until the day he receives his diploma, is aimed at preparing him to handle confrontations with the public professionally.

And productivity can be measured in the success with which he handles such confrontations, whether they involve issuing a traffic summons or arresting a violent murderer.

All of these daily confrontations obviously will influence public confidence in their police agencies. And the benefits to be derived from public confidence are myriad, for both the police agency and the community it serves.

In Kansas City, Mo., a proposal was made to raise the city earnings tax from 1/2 percent to 1 percent in 1970.

It was made quite clear to the

(Continued on page 18)

The Effectiveness of Snub-Nose Revolvers and Small Automatic Pistols

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Most police departments require their officers to be armed at all times when they are within the jurisdiction of the department. Issue or service weapons are often heavy and bulky, so many officers carry a different weapon while off duty or on plainclothes assignments. These nonissue weapons vary widely in type and caliber. Some police agencies specify the type and caliber of these nonissue weapons, while other departments have no such requirements.

Weapons carried off duty or on plainclothes assignments generally fall into two categories: snub-nose .38 Special revolvers and pocket-size semiautomatic pistols. The advantages of the snub-nose .38 Special revolver are that this caliber is usually the same as that of the issue weapon and that the .38 Special cartridge is "more powerful" than the cartridges available for the pocket-size automatics. The advantages of the semiautomatic pistols are that they are flatter and are

less bulky than revolvers, making them easier to carry and conceal. In addition, semiautomatic pistols generally hold more rounds than revolvers and therefore have greater firepower.

There are three standard calibers of pocket automatic pistols that deserve consideration for police use: (1) the .22 long rifle, (2) the .32 automatic Colt pistol (ACP), and (3) the .380 automatic. Most authorities state that .380 is the smallest caliber which should be carried and dismiss the other calibers as ineffective. Such recommendations are based on the "paper ballistics" of these rounds, as well as the traditional American feeling that the bigger the caliber and the heavier the bullet, the more effective the cartridge.

A continuing program to evaluate the wounding effectiveness of different calibers and types of ammunition used by police is being conducted by the Southwestern Institute of Forensic Sciences. The institute has determined the effectiveness of the snub-nose .38 Special revolver and pocket-size automatic pistols of .22 long rifle, .32 ACP, and .380 calibers.

Theory

Research in wound ballistics during and after the Second World War revealed that the severity of a wound is directly related to the amount of kinetic energy lost by a bullet in the body.^{1, 2} This means that the greater the loss of kinetic energy, the greater the damage to the tissues, and therefore, the severer the wound. From this, it was concluded that the wounding effectiveness of different types and cali-

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"... it is not the total amount of kinetic energy that a bullet loses in tissue that is of importance; rather, it is the energy delivered to the thoracic and abdominal organs . . . that causes incapacitation."

bers of cartridges would be evaluated and compared by determining the amount of energy lost by each bullet in passing through tissue. Research also revealed that for experimental purposes 20 percent gelatin at 10°C could be substituted for human tissue.^{1, 2}

It should be noted that it is not the total amount of kinetic energy that a bullet loses in tissue that is of importance; rather, it is the energy delivered to the thoracic and abdominal organs, i.e., the heart, lungs, and liver, that causes incapacitation. In view of this, blocks of gelatin, 15 cm in depth, are used for testing. Penetration by a bullet beyond 15 cm (approximately 6 inches) is not important because at this depth the bullet would have struck or bypassed the major organs, or would have exited from the body. Using these research theories and techniques, it is now possible to compare the wounding effect of different calibers and types of cartridges by determining the amount of kinetic energy lost by bullets passing through a gelatin block.

Methods

The tests were conducted at a range of 15 feet from muzzle to gelatin block, using weapons of the type commonly carried by police officers when off duty: a Smith & Wesson "Chief Special," caliber .38 Special, 2-inch barrel; a Walther PPK, caliber .22 long rifle; a Walther PPK, caliber .32 ACP; and a Walther PPK, caliber .380. Firings were made through 20 percent gelatin blocks, 16 cm in height,

16 cm in width, and 15 cm in depth, which were kept at a temperature of 10°C. Gelatin specifically produced for such studies was used. The velocity of each bullet prior to entering and the velocity upon exiting the block were determined using two chronographs. The kinetic energy was computed using the formula $KE = WV^2/2g$, with W being the weight of the bullet, V the velocity, and g the gravitational acceleration. The bullets were recovered and weighed to determine any loss of weight in passing through

the block, as this would alter the determination of the exit kinetic energy.

Results

Table I gives the amounts of kinetic energy lost in gelatin by various standard calibers and types of ammunition used by police. This table provides a basis for comparison with results obtained in the present test.³ Table II gives the amounts of kinetic energy lost by different brands of .38 Special ammunition fired into blocks

TABLE I
Loss of Kinetic Energy in Gelatin Blocks by Various Standard Police Weapons and Ammunition

Caliber	Ammunition	Weapon	Kinetic energy lost ± 1 SD* (foot-pound)
.38 Special	Remington 158 gr lead round nose.	4-in barrel Smith & Wesson, Model 15.	77 \pm 18
.357	Remington 158 gr lead semiwad-cutter.	4-in barrel Smith & Wesson, Model 19.	166 \pm 19
9 mm	Winchester 115 gr full metal jacketed.	Smith & Wesson, Model 39.	107 \pm 15
.45 ACP	Remington 230 gr full metal jacketed.	Colt, Model 1911A1.	117 \pm 6

*SD—standard deviation.

TABLE II

Kinetic Energy Lost in Gelatin Blocks by 11 Different Commercially Available .38 Special Cartridges Fired in a 2-Inch Barrel Smith & Wesson Chief Special

Manufacturer	Bullet weight (grains)	Description	Muzzle velocity ± 1 SD* (feet per second)	Kinetic energy lost ± 1 SD* (foot-pound)
Remington.....	158	Round nose, lead.	656 \pm 12	62 \pm 13
Federal.....	158	Do.....	738 \pm 7	66 \pm 2
Winchester.....	158	Semiwadcutter, lead, "Super-Speed."	835 \pm 25	108 \pm 17
Remington.....	125	Jacketed hollow point.	808 \pm 18	116 \pm 12
Do.....	148	Target wadcutter, lead.	674 \pm 11	125 \pm 6
Smith & Wesson.	90	Jacketed soft point.	1046 \pm 13	127 \pm 6
Do.....	110	Jacketed hollow point.	931 \pm 20	144 \pm 7
Super Vel.....	110	Jacketed soft point.	971 \pm 36	147 \pm 14
Remington.....	95	Jacketed hollow point.	995 \pm 25	205 \pm 8
Super Vel.....	110	Do.....	968 \pm 18	208 \pm 15
Winchester.....	158	Hollow point, lead.	841 \pm 14	214 \pm 5

*SD—standard deviation.

of gelatin using a Smith & Wesson "Chief Special" revolver with a 2-inch barrel. Table III shows the amounts lost when various brands of .22 long rifle, .32 ACP, and .380 automatic cartridges were fired using Walther PPK pistols with 3½-inch barrels.

The data from tables II and III show that .22 long rifle cartridges, the .32 ACP and the .380 cartridges with full metal jacketed bullets, and the .38 Special cartridges with 158 grain (gr) round nose lead bullets are essentially equal in wounding effectiveness. This relative equality in wound-

ing effectiveness of the full metal jacketed .32 ACP and .380 rounds has been noted previously in an article by Dziemian and associates in 1961.⁴ When the .380 Super Vel and Smith & Wesson hollow point cartridges were fired, the kinetic energy lost was 133 \pm 9 and 140 \pm 10 foot-pounds (ft-lb) respectively. These are greater losses of energy than the full metal jacketed .45 and 9 mm rounds (table I). It should be noted that in our experience the .380 Super Vel hollow point bullet does not expand either in gelatin or in human tissue. The increased loss

of kinetic energy is apparently due to the increased velocity and blunt nose shape of this bullet rather than due to expansion. The Smith & Wesson .380 hollow point did not expand in gelatin in our tests. We have not seen any individuals shot with this ammunition.

In caliber .38 Special, the Winchester semiwadcutter, the Remington 125 gr jacketed hollow point, the Remington wadcutter, the Smith & Wesson jacketed soft point and hollow point, and the Super Vel soft point were markedly superior to the traditional 158 gr round nose bullets. These cartridges approach, and in two instances equal, the loss of energy of the .380 hollow point cartridge.

Use of the Winchester 158 gr, the Super Vel 110 gr, and the Remington 95 gr hollow point rounds results in even greater effectiveness for the .38 Special revolver. The energy lost was three times as great as that of the traditional 158 gr lead round nose bullet.

For the sake of completeness and as some police officers carry .25 automatics as a second weapon, the effectiveness of this caliber and its ammunition was determined. The weapon used was a Colt hammerless .25 automatic. Standard testing conditions were followed. The results of the tests are given in table IV.

Conclusions

- The snub-nose .38 Special revolver firing the traditional 159 gr round nose lead bullet is no more wound effective than pocket-size automatic pistols firing .22 long rifle lead bullets and .32 ACP or .380 automatic full metal jacketed bullets.

- There is essentially no difference in the wounding effectiveness of the .32 ACP and the .380 automatic cartridges with traditional full metal jacketed bullets when fired from weapons of the same barrel length.

TABLE III

Loss of Kinetic Energy in Gelatin Blocks of Various Brands of .22 LR, .32 ACP, and .380 Cartridges Fired in Walther PPK's

Caliber/ manufacturer	Bullet weight (grains)	Description	Muzzle velocity ± 1 SD* (feet per second)	Kinetic energy lost ± 1 SD* (foot- pound)
.22 long rifle (high velocity):				
Winchester-Western.	37	Hollow point.	994 ± 15	77 ± 6
Remington...	36	Do.....	985 ± 34	71 ± 10
Winchester-Western.	40	Solid lead.	955 ± 22	67 ± 4
Remington...	40	Do.....	966 ± 14	62 ± 3
.32 automatic:				
Winchester...	71	Full metal jacketed.	880 ± 19	53 ± 6
Browning....	71	Do.....	927 ± 13	58 ± 5
Smith & Wesson.	71	Do.....	911 ± 26	64 ± 8
Geco.....	73	Do.....	976 ± 17	65 ± 6
Remington...	71	Do.....	912 ± 26	66 ± 9
.380 automatic:				
Remington...	95	Do.....	786 ± 16	67 ± 4
Winchester...	95	Do.....	866 ± 27	74 ± 2
Super Vel....	88	Jacketed hollow point.	1080 ± 19	133 ± 9
Smith & Wesson.	84	Do.....	922 ± 16	140 ± 10

*SD—standard deviation.

TABLE IV

Kinetic Energy Lost in Gelatin Blocks by Two Brands of .25 ACP Ammunition Fired in a Colt Automatic Pistol

Manufacturer	Bullet weight (grains)	Description	Muzzle velocity ± 1 SD* (feet per second)	Kinetic energy lost ± 1 SD* (foot- pound)
Western.....	50	Full metal jacketed.	789 ± 15	43 ± 10
Remington.....	50	Do.....	774 ± 23	47 ± 8

*SD—standard deviation.

"Use of hollow point bullets can double the wounding effectiveness of the .380 cartridge and triple that of the .38 Special cartridge."

• The .22 long rifle high velocity cartridge, with either a solid or hollow point bullet, fired from a pocket automatic is essentially equal in its wounding effectiveness to the traditional full metal jacketed bullets fired from .32 and .380 automatic pistols of the same barrel length.

• The .25 automatic cartridge as would be expected is significantly inferior to the .22 long rifle, .32 ACP, .380, and .38 Special cartridges.

• Use of semiwadcutter, wadcutter, and soft point bullets in the .38 Special revolver increases the wounding effectiveness of this weapon substantially but generally not as much as hollow point bullets.

• Use of hollow point bullets can double the wounding effectiveness of the .380 cartridge and triple that of the .38 Special cartridge.

FOOTNOTES

¹ R. W. French and G. R. Callender, Ballistics characteristics of wound agents, "Wound Ballistics," ed. by J. C. Beyer. Office of the Surgeon General, Department of the Army, Washington, D.C., 1962, pp. 91-141.

² E. N. Harvey, J. H. McMillen, E. G. Butler, and W. O. Puckett, Mechanism of wounding. "Wound Ballistics," ed. by J. C. Beyer. Office of the Surgeon General, Department of the Army, Washington, D.C., 1962, pp. 143-235.

³ Vincent J. M. DiMaio, J. Allan Jones, W. W. Caruth III, Louie L. Anderson, and Charles S. Petty, "A Comparison of the Wounding Effects of Commercially Available Handgun Ammunition Suitable for Police Use," FBI Law Enforcement Bulletin, vol. 43, No. 12, Dec. 1974, pp. 3-8.

⁴ A. J. Dziemian, J. A. Mendelson, and D. Lindsey, Comparison of the wounding characteristics of some commonly encountered bullets, J Trauma, 1:341-353, 1961.

COMPUTER CATCHES KIDNAPER

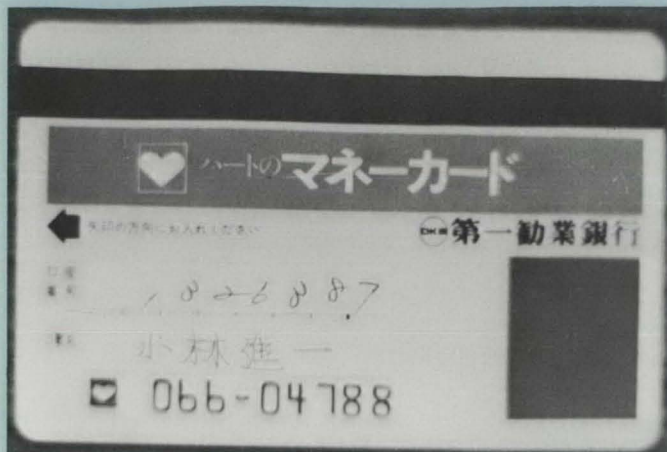
"... outstanding cooperation by the banking authorities worked to turn the criminal's apparent 'computer advantage' to our own."

By

SADATOSHI SUZUKI

Director

Criminal Investigation Division
Metropolitan Police Department
Tokyo, Japan



Money card of "S. Kobayashi."

Police and bank personnel monitor central computer equipment for signal





Automatic cash-dispenser station at the Tokyo Metropolitan Police Department terminal where the kidnap suspect was apprehended.

the kidnaper's location.



It was a tragic kidnap-murder case in Tokyo in the spring of 1963 which inspired creation of the Crime Combat Team of the Tokyo Metropolitan Police Department (MPD).¹ This story, a happy sequel to that beginning, tells how the Crime Combat Team has lived on to take full advantage of modern technology and civic cooperation to beat a kidnaper at his own game.

At about 3:25 a.m. on August 15, 1974, a police officer on duty in a residential district of western Tokyo was startled to see a man clad only in pajamas running toward him. The man was strained and nervous, and his words were hardly coherent. "My baby . . . gone . . . someone took her," he blurted out to the policeman. The distraught father turned out to be Masahiko Tsugawa, a well-known Japanese movie and television actor.

Simultaneous with this incident, the Tokyo Metropolitan Police Headquarters received a call on the police emergency number, "110," from the maid at Tsugawa's residence, who reported that at around 2:30 a.m., Mayukochan, the 4-month-old daughter of Tsugawa and his actress wife, had disappeared from her nursery, apparently abducted by an unknown intruder.

Detectives of the Tokyo police "Flying Squad"² responded immediately to the complaints. While they were interviewing the family, the telephone rang. Instinctively, the maid handed the receiver to a detective-sergeant of the Flying Squad, who pretended to be the father. A calm, businesslike male voice stated from the other end of the line: "We have your baby. We want 5 million yen (\$16,500). Deposit the money to account no. 1326387 in the name of 'S. Kobayashi' at the Shin-

juku Branch of First Kangyo Bank. You have until noon tomorrow." The caller then hung up.

Combat Team Moves In

The Tokyo police Crime Combat Team is a group of highly trained and coordinated detectives organized around a core called the Special Investigation Squad. To tackle this case, a 158-man Combat Team was promptly formed under the leadership of Senior Police Superintendent Kanji Nagumo, chief of the First Criminal Investigation Section. Immediate concentration was focused on measures to be taken at the victim's house and at the banking facility where the kidnaper demanded the ransom be paid.

Not a single word about the case appeared in newspapers or television broadcasts. Cooperation of the media was complete. Bitter experiences in the past had brought about an understanding between police and the press, TV, and other media. In cases of kidnaping or other crimes where the life of a victim is in danger, the media refrain from premature exposure of news or any other activities that could hinder successful investigation. The Tokyo police, in return, keep the media fully informed of developments so that a comprehensive release can be made at the proper time. This arrangement has repeatedly brought excellent results.

Kidnaper Plans To Exploit a Computer

We learned from the First Kangyo Bank that the above account had been opened in the name of S. Kobayashi



Senior Police Supt.
Kanji Nagumo

on July 19, 1974, with an initial deposit of 15,000 yen (about \$50). The suspect, Kobayashi, had obtained from the bank a "money card" with which it was possible to get cash withdrawals from the account at any of 348 computer-controlled automatic cash-dispenser stations located throughout Japan. By inserting the cash card into the dispenser and pushing a specified code number, withdrawals could be made automatically in amounts up to 300,000 yen (\$1,000) as soon as the computer verified that there were sufficient funds in the account. Bank records showed that Kobayashi had tested the system by making small withdrawals from his initial deposit at cash dispensers located in four different areas of Tokyo. Obviously, the suspect was satisfied that he had found a foolproof payoff plan, as it appeared he could remove substantial funds from the ransom account and be far away from the cash-dispenser station before police could determine from which station the money had been withdrawn. Like many others before him, the suspect quite likely believed he had invented the "perfect crime."

The address which Kobayashi had given the bank was, of course, fictitious. A review of pertinent police records produced nothing. Obviously, S. Kobayashi was a genuinely false

"The Tokyo police Crime Combat Team is a group of highly trained and coordinated detectives . . ."

identity. Police officers stayed with the grief-stricken parents, but care was taken to reveal no unusual activity at the victim's home, since it was possible that the kidnaper or his accomplices had the house under observation. From a neighboring house, a discreet countersurveillance was established by detectives using noctovision equipment—a telescopelike device sensitive to infrared radiation which permits clear vision in the dark. Every police headquarters throughout Japan was alerted so that instant action would be taken upon any lead. The team in the house waited for the next phone call from the suspect, but no call came. It was a sleepless night for both the family and the police.

Police Harness the Computer

On the first day of its investigation, police held probing discussions with banking officials concerning the operation of the computer-controlled automatic cash-dispenser stations. It was found, much to the dissatisfaction of the police, that it would take bank computer personnel at least 20 minutes to identify which of the 348 dispensers had been triggered for the payoff. Without making police presence so obvious as to scare away the suspect, there was no way we could check out each visitor to each dispenser station throughout the country. It was at this point that outstanding cooperation by the banking authorities worked to turn the criminal's apparent "computer advantage" to our own. With a human life at stake, they agreed to reprogram the entire system so that the operator of the central computer would immediately know which dis-



Supt. Gen.
Kuniyasu Tsuchida

penser had been fed the money card and code of S. Kobayashi. Knowing that they had only until noon the next day, bank technicians worked all day and throughout the night to complete this considerable reprogramming.

By noon on the day following the kidnapping, through coordination with the National Police Agency of Japan, with which the Tokyo police are closely integrated, over 1,000 detectives were waiting in groups of two or three men, covering each of the 348 dispensers throughout the country. Each team was equipped with a transceiver so they could be notified immediately of word from the computer in Tokyo. Nationwide police radio centers were tuned in to relay the message, expected the moment the computer center received its "hit" on the S. Kobayashi money card.

Meanwhile, the victim's father had withdrawn 1,500,000 yen (\$5,000) of his own funds and had this money deposited in the suspect's account. Only a partial deposit of the full (\$16,500) ransom demanded was made in order to keep a way open for further contacts and negotiation with the kidnaper, if needed.

At the victim's home, at police headquarters, and at each of the stake-out posts near each automatic cash dispenser, the police waited, silently, tensely, and prayerfully.



Money card is inserted (above) in automatic cash-dispenser station which issues currency (below) in the amount requested after the computer authenticates the transaction and the adequacy of the account from which the funds are to be withdrawn.



The Arrest

Anxiety was particularly present among the police assigned to the posts covering the south entrance of Tokyo Railway Station, the largest transportation center in Tokyo, as the cash dispenser there seemed to be the most nearly ideal one from which the criminal could best avoid detection and

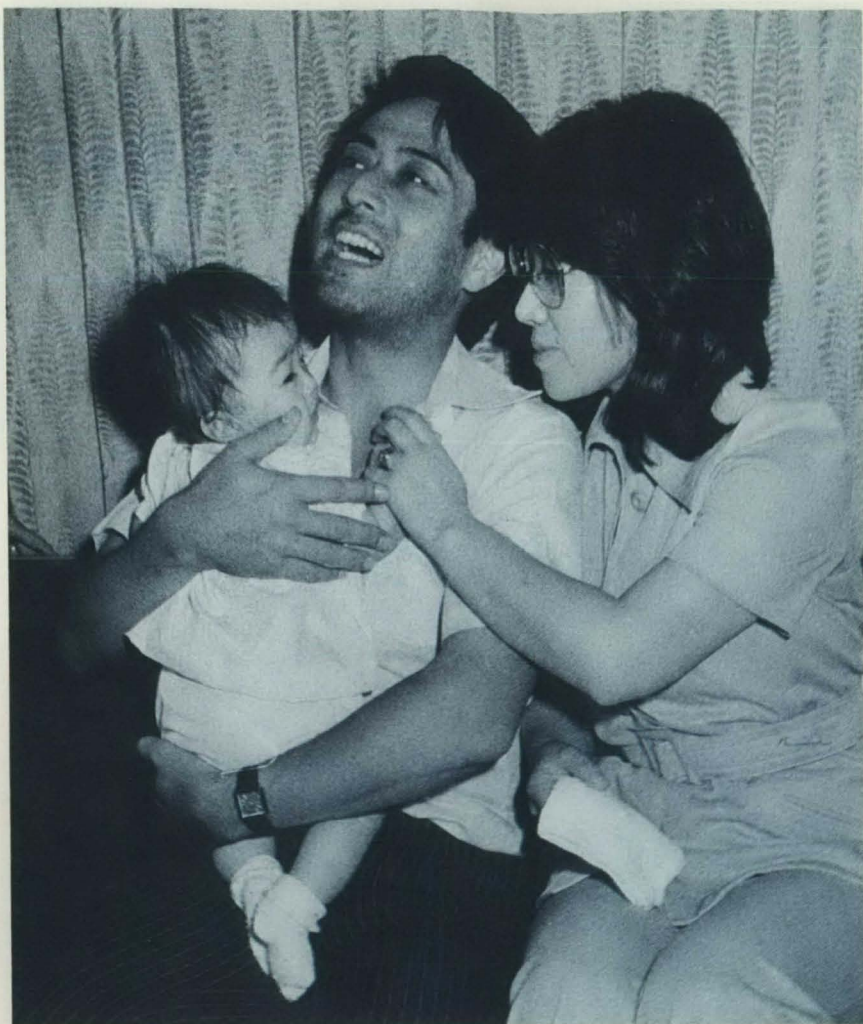
make a successful escape in the turmoil of passengers that surged through the terminal at all hours of the day. As a result, a decision was made beforehand to immediately arrest the suspect if he received the ransom at this location since there were slim possibilities, prior to his apprehension, of maintaining a discreet and successful police surveillance of him

for the purpose of insuring the whereabouts and safety of the victim. It was a hard decision for the police to make but less risky, under these circumstances, than possibly never knowing who the suspect might be as well as where, and if the child was still alive. The police were haunted by the tragic fact that many, if not most, infant kidnaping victims have been killed or left to die by their abductors soon after commission of the crime.

Peering intently past the surging tide of passengers entering and leaving the train terminal, the police, with radio transceivers held in anxious hands, snapped into action when, at 12:16 p.m., the signal came through: "Urgent! We have a hit! Tokyo Station—South entrance! . . . Repeat. . . ."

But before the message could be repeated, detectives had surrounded a young man wearing a yellow short-sleeved shirt who had just emerged from the automatic cash dispenser. In one hand he held the S. Kobayashi money card, and in the other hand, 290,000 yen in crisp bills that had just been dispensed by the computer. Never has any suspect been more surprised than Kobayashi.

Under interrogation at police headquarters, the suspect at first denied implication in the kidnaping and refused to reveal his true identity or the location of the baby. However, a check of the suspect's fingerprints against National Police Agency fingerprint records revealed that he was a 24-year-old resident of Chiba Prefecture, about 10 miles from Tokyo. He had six previous arrests and was at the time on parole after conviction for theft. A Flying Squad team was dispatched immediately to stand by at his address. At 6:50 p.m., August 16, the suspect admitted that his wife was aware of the crime and was holding the baby at their apartment in Chiba. Radio instructions were sent out at once to the Flying Squad: "Go



Joyous parents coddle their infant child who was returned safely to them as a result of vigorous and innovative police investigation. (Photo courtesy of the Mainichi newspaper.)

in and rescue the baby!" By 9:30 p.m., the 49-hour ordeal ended, with the infant safely in the arms of her parents. The suspect was charged with kidnaping for ransom and was sentenced to 10 years' imprisonment. His wife was charged as an accessory.

Gratitude of Family


During a press conference the baby's mother commented: "It was a terrible experience. I could hardly eat and could not sleep. I probably could not have preserved my sanity if it had not been for the police superintendent stationed at my house, who spent two sleepless nights himself, but still was

always kind and reassuring, bolstering our morale when we began to lose hope."

And in a dramatic television broadcast showing the baby's reunion with her parents, the father told the TV audience: "I have never thought of police this way before, but after all they have done today to return Mayuko-chan to my arms, the police seem nothing less than an instrument of God."

FOOTNOTES

¹ See "Crime Combat Team," by Kuniyasu Tsuchida, FBI Law Enforcement Bulletin, September 1970, p. 21.

² See "Tokyo Major Crimes First Investigated by 'Flying Squad,'" by Yoichi Tamamura, FBI Law Enforcement Bulletin, July 1962, p. 12. 

POLICE PRODUCTIVITY

(Continued from page 9)

voters that a major share of the new revenue would be allocated to the police department for additional personnel and equipment to fight crime.

There were those who said chances for getting the people to vote to increase their city earnings tax were two—slim and none.


But on December 17, 1970, the people of Kansas City went to the polls and voted two to one to approve the additional tax.

That event demonstrated dramatically to me that a community can and will show its concern about crime, that a community can and will express confidence in their police agency, in manifest and beneficial ways.

A citizen's involvement in crime reduction efforts reflects confidence in his police agency. And this confidence can only be earned by solid professional performance and carefully maintained credibility.

The public must be convinced their police agency is trying to do a good job. They must be made to understand that police agencies consist of human beings—human beings who sometimes blunder—but who are trying their utmost to serve them honestly and efficiently with whatever resources they have available.

And the only possible way we can convince the public of that is to insure that we in fact do try our utmost to perform our work honestly and efficiently—with true concern for improving the quality of their lives.

Thank you. 

“By your conduct and skill—and I hope in part by virtue of what you have learned at this Academy—I am sure you will show the people of America that they may trust in the law and in you,” stated the Honorable Edward H. Levi, Attorney General of the United States, at the graduation ceremonies of the FBI National Academy at Quantico, Va., on March 20, 1975. With this graduation, which featured the Attorney General as the principal speaker, the National Academy passed another important milestone in its 40-year history. It marked the conclusion of the Academy’s 100th Session.

In the words of the class spokesman, Lt. Clyde D. Maneri of the Oakland

Park, Fla., Police Department, “There is something magic about the number 100. Certainly none of us will ever forget that we were a part of the 100th Session of this Academy.” The spokesman went on to present his views regarding the truth behind the National Academy’s motto—Knowledge, Courage, Integrity—as it relates to law enforcement officers, particularly the graduates of the 100th Session. He stated that “a law enforcement officer’s presence at the National Academy indicates his integrity is held in high esteem.” The lieutenant illustrated the law enforcement officers’ knowledge by pointing out that not only had he and his classmates attended the National Academy, but that

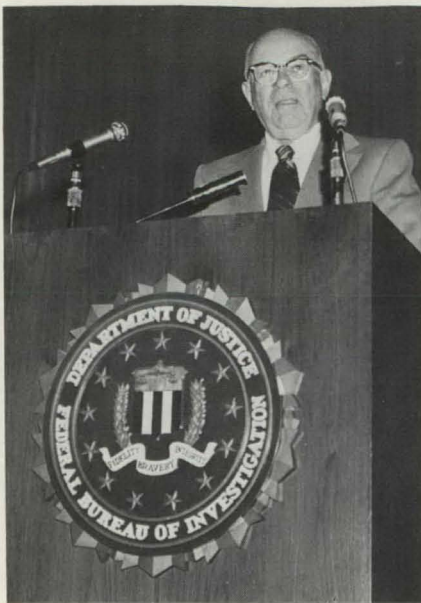


The Honorable Edward H. Levi, Attorney General of the United States, delivers the principal address.

Professionalism: Legacy of the 100th Session



Pictured with Attorney General Edward H. Levi are several FBI officials and guests who participated in the FBI National Academy’s 100th Session graduation ceremonies. Shown, left to right, are: Insp. James V. Cotter, FBI Training Division; Assistant Director Joe David Jamieson, FBI Training Division (since retired); Mr. Hugh H. Clegg, retired FBI Assistant Director; FBI Assistant to the Director-Deputy Associate Director Thomas J. Jenkins; Attorney General Levi; Comdr. A. W. Riggs, Chaplain Corps, U.S. Navy; Chief of Police Clyde P. Klaumann of Carmel, Calif., President of the FBI National Academy Associates; and Deputy Assistant Director Edward L. Campbell, Jr., FBI Training Division.



Mr. Hugh H. Clegg, a retired Assistant Director of the FBI, addresses the graduating class.

a number of the officers present held advanced academic qualifications.

"As for Courage," stated Lieutenant Maneri, speaking of his fellow officers, "... the very fact they are volunteer frontline members in a war against crime assures they are courageous." Before closing his remarks, Lieutenant Maneri left the 100th Session of the National Academy with a legacy, saying that "every law enforcement officer graduating from this Academy in the future should be known as a professional."

Mr. Thomas J. Jenkins, Assistant to the Director-Deputy Associate Director of the FBI, congratulated the class on behalf of FBI Director Clarence M. Kelley, who was unable to participate in the ceremonies. Mr. Jenkins then read to the graduating class a congratulatory letter from President

Ford (which is reproduced in its entirety below). Mr. Jenkins next introduced Mr. Hugh H. Clegg, a retired Assistant Director of the FBI, who had played an important part in the formation and early development of the National Academy.

It was Mr. Clegg who had put together the Academy's first curriculum and faculty, and then exerted considerable influence over the school's development for the next 20 years. He closely followed the progress made by hundreds of law enforcement officers and assisted them in the course of over 50 National Academy Sessions. He also supervised the training of thousands of FBI Special Agents. Following retirement from the FBI, after nearly 28 years of service, Mr. Clegg became assistant to the chancellor

- 2 -

THE WHITE HOUSE
WASHINGTON

March 17, 1975

Dear Mr. Kelley:

I am happy to extend my warmest congratulations to you, your associates and all the members of the one hundredth FBI National Academy Session on this very special occasion.

With the graduation of this fine class, the FBI National Academy marks a significant milestone in the continuing and vital progress of law enforcement training. The cooperative services of the FBI in the field of police training, especially at your notable educational facilities at Quantico, Virginia, have greatly enhanced the stature of the law enforcement profession.

Our society has undergone many changes since the first session of the FBI National Academy was convened in 1935. That trailblazing class of twenty-three members would find a far more sophisticated curriculum awaiting it on return to the Academy today. But the enthusiasm and dedication of those first lawmen set high standards which always remain the same.

I find it most significant that the roster of the class of 1975 includes sixteen officers from foreign countries. This is reflective of the growing inter-dependence in the world and of the widely-shared conviction that we must all work together to resolve our common problems.

I want to take this historic opportunity to assure, not only the members of this one hundredth class, but all our nation's law enforcement officials, that I am well aware of the problems they face day by day in dealing with crime in our society. It is not their problem alone. It is not the Government's problem alone. It is a challenge that to all of us -- one that requires the full cooperation of all citizens with those who are charged with the duties of law enforcement in our communities.

On this occasion, I want to emphasize that the full resources of our Federal Government will be used to support the dedicated efforts of our nation's law enforcement officers, and that they will have our best possible support in their important work.

I hope that this will be an especially memorable day for the FBI National Academy, its graduates and all your colleagues.

Sincerely,

Gerald R. Ford

Honorable Clarence M. Kelley
Director
Federal Bureau of Investigation
9th and Pennsylvania Avenue, NW.
Washington, D. C. 20535

and director of development at the University of Mississippi.

Mr. Clegg spoke to the class on the National Academy's history, beginning with its establishment at Washington, D.C., in July of 1935. He told the graduates how J. Edgar Hoover had been approached with the idea of forming a national police training school by the police training committee at the annual convention of the International Association of Chiefs of Police in Atlantic City, N.J.

"The success of these early students . . . and their succeeding classes," said Mr. Clegg, "is evidenced by the fact that we have this great campus, this splendid college here at Quantico today." "If they had failed," he added, "the demand from the police officers and the requests of Congress would not have brought about this consummation. The fact that they succeeded is evidenced by your presence here today." Mr. Clegg then referred to the many pioneering instructors at the Academy, among them the FBI's present Director—Mr. Kelley.

After thanking Mr. Clegg for his very fine remarks, Mr. Jenkins introduced the guest speaker, Attorney General Levi, who spoke to the class about the problems faced in enforcing the law and administering justice.

"As law enforcement officials, you, more than anyone else, represent the power and quality of the state," said the Attorney General. He then continued, "Your action and direction bridge the gap between the government and the individual. By your conduct you represent the government as it affects people in their daily lives."

"What you do," stressed Mr. Levi, "reaches the vast number of Americans who will never see the criminal justice system first hand [and] . . . as agents of the criminal justice system, the people with whom you deal will see in your conduct a mirror of the totality of government."

Mr. Levi next proffered his views on crime deterrence, stating, "The better we do the job of detecting crime and finding its perpetrators, the more likely others who think about committing crime may think twice and decide against it."

Mr. Levi stated that the police officers' part in bringing efficiency to the criminal justice system consists of setting up enforcement priorities, reorganizing their departments so they will function effectively, and "emphasizing the importance of swiftness and certainty" in the solution of crime.

The Attorney General told the graduating class that the Department of Justice is presently engaged in proposing major changes in the criminal code, revisions of which have been presented to Congress. Mr. Levi also said that new handgun control legislation—some of it initiated by the Justice Department—is being discussed in Congress.

Mr. Levi then examined the public's fear of crime and doubts about the fairness in the law's enforcement. "As police officials," stated Mr. Levi, "you will bear the burden of that fear and of that lack of faith more than anyone else. You also will have more opportunity than anyone else to calm the fears and to restore the faith in American justice."

"We must never forget one essential truth: Neither the law in general nor the criminal law in particular can be entirely enforced by the government," he said, emphasizing that "enforcement must spring from the faith of citizens."

Before closing his remarks to the graduating class, Attorney General Levi underscored the fact that the law enforcement profession is the one that "brings the criminal justice system to the people it serves."

Following the Attorney General's comments, a number of distinguished guests were introduced. Among them

were Mrs. Levi and members of the FBI National Academy Associates including Chief of Police Clyde P. Klummann of Carmel, Calif., president; two vice presidents, Grant M. Harden, chief investigator of the State Attorney's Office, Bartow, Fla., and Chief John J. Kerrigan of the South Windsor, Conn., Police Department; section representatives, Deputy Chief Stephen F. Lagomarsino of the New Mexico State Police, and Col. James D. Barger, director of the Pennsylvania State Police; historian, Earl L. Drescher of the Executive Protective Service, Washington, D.C.; and secretary-treasurer, Deputy Chief Franklin A. Arthur of the National Park Service.

Next to be introduced were several representatives of the University of Virginia, including Bruce Nelson, dean of the School of Continuing Education.

At this point, Insp. James V. Cotter of the FBI's Training Division presented the 100th Session graduating class to Mr. Jenkins who proceeded to award diplomas to each of the 249 graduates, among whom were 16 representatives of foreign law enforcement agencies. The 100th Session brought the total number of National Academy graduates to 8,919 law enforcement officers who have benefited from this highly professional training since the first session commenced on July 29, 1935.

Before concluding the graduation ceremonies, Assistant Director Joe David Jamieson of the FBI Training Division asked everyone present to join in expressing their appreciation to members of the U.S. Marine Corps Band and its conductor, M. Gy. Sgt. George Tideman, for the very fine musical program.

The ceremonies came to a close with a benediction by Comdr. A. W. Riggs of the U.S. Navy Chaplain Corps, and a stirring rendition of the National Anthem by the U.S. Marine Corps Band.

FBI

The Silent Witness

By

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Federal Bureau of Investigation
Washington, D.C.

The investigation of crime and the criminal constitutes the threshold stage of a criminal prosecution. It may be defined simply as the systematic search for facts to establish the truth of a case, especially those facts that may be admissible in court under the rules of evidence. As to the arduousness and importance of the investigative task, a prominent trial lawyer once observed: ¹

"The really difficult problem in the preparation of the case is to learn what the facts are, and no matter how long or conscientiously you work, you will never know them all. The law seldom decides the issue, the facts do; and as contrasted with the ascertainment of the facts, the law is relatively easy to discover."

The breadth and depth of a criminal investigation differ from case to case and so do the kinds of evidence the investigator encounters in his search. More often than not the evidence will consist of the oral assertions of witnesses, i.e., testimonial evidence; or the words and symbols on a writing of a public or private character, i.e., documentary evidence. It may also consist, however, of tangible objects or substances, i.e., so-called real evidence.²

Although real evidence is relatively rare compared to testimonial and documentary evidence, it is frequently

"Real evidence is almost unlimited in its variety and may shed light on divers issues before the court."

Law enforcement officers of other than Federal jurisdiction who are interested in any legal issue discussed in this article should consult their legal advisor. Some police procedures ruled permissible under Federal constitutional law are of questionable legality under State law, or are not permitted at all.

more clinching than both in its probative effect. It has an inherent capacity "to speak for itself" in particular instances. Literature has given us the classic example of this attribute in the discovery by Robinson Crusoe of the fresh print of the naked human foot in the sand of his island beach. Familiar examples of this species of evidence, usually found at the scene of the crime or the arrest and thereafter tied to the accused in one way or another, are weapons, apparel, hairs, fibers, specimens of soil or the human body, fingerprints, tire marks, and glass fragments. Reproductions of material things by means such as plaster casting and photography constitute real evidence. Real evidence is almost unlimited in its variety and may shed light on divers issues before the court. Items thereof are submitted for the inspection of the triers of fact, jury or judge without a jury, in order that they may ascertain the facts about them by use of their own senses, usually that of sight.

Although real evidence stands in contrast to testimonial evidence in that the trier of fact can perceive the thing involved immediately without relying upon the oral assertions of witnesses, its probative function rests partly upon testimonial evidence. It so rests because items of real evidence generally do not identify themselves. They must be authenticated or sponsored by the testimony of witnesses and their

nexus with the case established and explained. Since actual production in court of the relevant thing itself makes a stronger impression and has a more persuasive effect than any word description a witness might give, real evidence forms a firm ground of belief respecting the particular fact it is offered to prove. In cases involving real evidence, expert witnesses qualified in a science or profession may be called upon to testify to inferences to be drawn from such evidence when these are beyond the ken of the average layman. This opinion evidence is admitted to aid the jurors in reaching their verdict on the truth in the case.

Two remarkable murder cases, a century apart in time, may serve to illustrate the consequential role played by real evidence in "the long and melancholy history of criminal jurisprudence." In the first, the *Case of Webster*, where the corpus delicti was disputed, the real evidence was crucial in establishing the material fact of the identity of the murder victim.³ In the second, the *Jackson Case*, where the corpus delicti was plain, the real evidence constituted the principal proof linking the accused to the crime as the murderer.⁴

Both these cases involved circumstantial evidence. In a well-known decision said by Dean Wigmore, our greatest writer on the law of evidence, to be the classical exposition on the relative probative value of circumstantial and direct evidence,⁵ the court declared in part: ⁶

1. Circumstantial evidence means simply that you take one fact that has been seen, that is produced before you by evidence, and from that fact you reason to a conclusion.
2. It is a mistake to say that circumstantial evidence is inferior to direct testimony. The truth is that no human testimony is superior to doubt in cases of the most direct proof.

3. In cases of circumstantial evidence, where the facts or circumstances which are proven are not only consistent with the guilt of the defendant, but are also inconsistent with his innocence, such evidence in weight and probative force may surpass direct evidence in its effect upon the jury.

The Case of Webster ⁷

This case, decided by the Supreme Judicial Court of the Commonwealth of Massachusetts in 1850, culminated in the most famous of all American trials prior to the Civil War. During its 12-day course, an estimated 60,000 persons passed in and out of the courtroom. Several reasons account for its fame. It was in this case, for example, that the great Chief Justice Lemuel Shaw of Massachusetts set out in the charge to the jury his highly influential definition of proof beyond a reasonable doubt and his graphic analysis of direct and circumstantial evidence. Our interest, however, is limited to the importance of real evidence in the identification of the murder victim, "[a] memorable instance of identification by a small fragment. . . ." ⁸

George Parkman, M.D., a 60-year-old Bostonian of singular appearance and gait who was both a philanthropist and an intractable businessman, left his home on Beacon Hill in the forenoon of November 23, 1849 in good health and spirits. About 1:30 p.m., he was seen going towards and about to enter the Massachusetts Medical School, attached to Harvard University, located in the West End of the city on the banks of the Charles River. He did not return home and no cause for his failure to do so was known to his family. The next day an extended and exhaustive search was launched for him and large rewards were offered for information

concerning his whereabouts.

The search for Dr. Parkman ended on November 31, 1849 a week after his disappearance, when portions of a dismembered and burned human body were discovered in and about the laboratory of John W. Webster, M.D., a professor of chemistry at the medical college. The head, arms, hands, and feet, the usual identifying features of a body, were missing. The body portions were not those of a cadaver dissected in the regular course of medical college procedure. In addition, a number of fragments of human bones, small quantities of melted gold, and six blocks, or parts, of a set of false teeth whose main ingredients were quartz and felspar were found in an assay furnace in Webster's laboratory imbedded in slag and cinders. Although most of the blocks of mineral teeth were severely injured by fire, one was well preserved as it rested on a grate near the bottom of the furnace where it received a current of cold air.

In the course of the investigation it was determined that Webster, a man of excellent reputation, was indebted to Parkman on certain notes and was being pressed by him for payment. On the morning of the day of the disappearance, Webster had left word at the Parkman home that the debt would be paid off if Parkman came to the medical college at 1:30 that afternoon. Webster had no means of settling the debt. The notes, canceled, were later found in Webster's possession and he made false statements concerning them. A professional penman familiar with Webster's handwriting was of the opinion that anonymous letters in a disguised hand mailed to the police and making suggestions diverting suspicion from the medical college were written by Webster. The mode of dissecting the body showed knowledge of anatomy. Following his arrest in the aftermath of the discoveries in his laboratory, Webster had inquired if the whole of

"Under principles of the criminal law, the prosecution must prove at a murder trial the fact that the life of a human being was taken and the fact that the death was caused by the criminal act of another person."

Parkman's body had been found.

In January 1850, Webster was indicted for the murder of Parkman. The main count of the indictment charged specifically that Webster had feloniously assaulted Parkman on November 23, 1849 in the medical college by unknown means and deprived him of his life. Webster pleaded not guilty to the charge. The two principal questions raised by the indictment which had to be resolved by evidence was whether Parkman came to his death by an act of violence and, if so, whether Webster committed the act. In March 1850, Webster was brought to trial before a jury, Chief Justice Shaw, and four associate justices of the Supreme Judicial Court of Massachusetts in keeping with the old procedure of the day. The case for the Commonwealth was presented by the attorney general.

Under principles of the criminal law, the prosecution must prove at a murder trial the fact that the life of a human being was taken and the fact that the death was caused by the criminal act of another person.⁹ These two facts, which constitute the component parts of the so-called corpus delicti in a homicide case, must be proved beyond a reasonable doubt by the best available evidence, direct or circumstantial. Thereafter, the identity of the accused as the criminal actor, which is not properly a part of the corpus delicti, must also, of course, be proved beyond a reasonable doubt.

By the great weight of authority, the identity of the victim in a murder case is not deemed to be part of the corpus delicti. But in those jurisdictions where it is so regarded or where, as in the instant *Case of Webster*, the indictment specifically charges that a

named person was slain, the identity of the victim becomes a material fact which the prosecution must likewise prove beyond a reasonable doubt. It is the general rule that circumstantial evidence is admissible to establish such identification, especially where the bodily remains are in such a condition that direct recognition is impossible. In cases where the body of the victim is practically destroyed, evidence of peculiar physical characteristics may be the sole means of identification.

The evidence brought forward at the trial by the attorney general tended to the conclusion that Parkman was last seen entering the medical college at about 1:30 p.m. on November 23, 1849, and that he lost his life in the medical college, if at all. The main defense of Webster in disputing the fact of death was that Parkman had been seen by seven witnesses at various places in Boston, at different times, between 1:45 p.m. and 5:00 p.m. on the afternoon of November 23, 1849. This defense that Parkman had been seen alive elsewhere out of the medical college where he had allegedly been slain was so repugnant to and inconsistent with the prosecution's theory that, if it was made out by satisfactory proof, it would be conclusive in Webster's favor and lay the ground for his acquittal.

The prosecution relied upon the following real evidence to prove the material fact that the human remains found in the medical college were those of Parkman: one, the portions of the dismembered and burned body, five in number, discovered in and about Webster's laboratory; two, the blocks of mineral teeth found in Webster's assay furnace along with the fragments of human bones and the

small quantities of melted gold.

As to one, the prosecution's evidence tended to show that the body parts resembled in respect to shape, size, height, and other particulars the corresponding portions of the body of Parkman—a man "quite peculiar in person." The prosecution called several witnesses, all prominent Boston physicians who knew Parkman personally. They testified that they had examined the fleshy portions of the body and catalogued the bone fragments. They stated that the remains belonged to one and the same body, that there was nothing to indicate that the body had been dissected for anatomical purposes, and that the dissection had required a certain degree of surgical skill. They testified that the body parts were those of a man in the middle period of life, that they showed a good muscular development with little fat, and bore an unusual amount of hair. These physical characteristics coincided with those of Parkman. They stated that nothing about the parts were dissimilar to those of Parkman. Among these witnesses was Dr. Oliver Wendell Holmes, dean and professor of anatomy at the medical college.

As to two, the prosecution called to the witness stand a dentist by the name of Dr. Nathan G. Keep. He stated that the fragmented set of false teeth found in the assay furnace, and exhibited to him in court, were the same teeth that he had made for Parkman 4 years previously and which he had repaired and refitted to Parkman's mouth only 2 weeks before his disappearance. He furnished the following details in the course of his testimony.

Keep made the set of teeth in October 1846, after Parkman, who was a friend as well as a patient, asked him to do so. Parkman had requested at the time that the teeth be prepared in a hurry as he expected to attend the ceremonies then being planned for the

opening of the new medical college. Parkman had donated the land for the school and he believed he might be invited to speak on that occasion.

Keep remembered the case with great exactness from the initial taking of the beeswax mouth impressions to the embedding of the blocks of teeth in the gold plates because of the difficult problems posed by Parkman's odd mouth structure. Although no natural teeth remained in his upper jaw, he had four teeth and three stumps of teeth in his unusually long and jutting lower jaw. Keep made the teeth for both the upper and lower jaws in six separate blocks and then set them in the gold plates. He recalled that after he finished the task Parkman tried the set of teeth in his mouth and complained that he did not have enough room for his tongue. Consequently, Keep had to grind the lower blocks in order to obtain the needed extra space.

In the course of the long process of preparing the teeth, Keep had moulded a series of plaster cast models of Parkman's entire mouth which were dated and inscribed with Parkman's name. Prior to casting the gold plate into which the blocks of mineral teeth were finally inserted, he had also prepared a preliminary plate in copper with interstices in the metal for the admission of the natural teeth and the stumps in Parkman's lower jaw.

When Keep first saw the blocks of teeth taken from the assay furnace in Webster's laboratory, he recognized the block uninjured by the fire by reason of its shape and outline as the one he had made for Parkman's lower left jaw where one of his natural teeth and two of the three stumps were located. Thereafter, when he compared this block with his plaster cast model, the resemblance was so striking he could no longer have any doubt that it was that of Parkman. Enough was left of the other blocks taken from the furnace to enable him to determine

where they belonged in the complete set.

To illustrate his trial testimony, Keep produced for the benefit of the court and jury the plaster cast models and the copper plate, which he had preserved. He invited special attention to the correspondence between the unique features of the lower left block of teeth found in the furnace and the plaster cast model of Parkman's lower jaw which highlighted these peculiarities. Finally, he pointed out the place where he had to grind out space in the lower set to make room for Parkman's tongue. His testimony was corroborated by his assistant with respect to the making of the set of false teeth for Parkman and the identification of the plaster cast models.

The foregoing testimony of Dr. Keep did not go unchallenged. The defense called Dr. William T. G. Morton, the famous dental surgeon who first demonstrated publicly in 1846 at the Massachusetts General Hospital the use of ether as an anesthetic. Morton testified that the false teeth found in the furnace might perhaps be susceptible to identification had they not been subjected to fire, but there were no marks about them then that Keep or anyone else could identify. He said the fact that the teeth had been ground was not unusual and there was nothing peculiar in the plaster cast of Parkman's lower jaw. He stated that he did not think the teeth, as they were then, fit the molds introduced by Keep with any degree of exactness and he produced molds into which the teeth in evidence fitted well. Morton's defense testimony was, in turn, rebutted by three dentists who testified that despite the condition of the teeth they believed Dr. Keep could recognize and identify his own dental work.

In his charge to the jury on the issue of the material fact of identity, Chief Justice Shaw dealt first with the evidence of the portions of the dis-

membered body considered alone, and then with the evidence of the fragmented set of false teeth considered in conjunction with the body parts.

The chief justice stated that the evidence regarding the correspondence of the body parts found in the medical college with those of Parkman was equivocal because these particulars would also correspond with those of many other persons in the community. Consequently, he said, this evidence would fail in the character of conclusiveness upon the point of identity. However, he ruled that if the fact was satisfactorily proved that the false teeth found in Webster's assay furnace were identical with the teeth prepared and fitted for Parkman, and if it was also shown to a reasonable certainty that the dismembered and burned remains discovered at the medical college were parts of one and the same dead body, this would be a coincidence of a conclusive nature to prove the fact of identity of the remains with the body of Dr. Parkman. He noted that the evidence of the correspondence of the body parts aided the proof of identification to some extent as it was consistent with and not repugnant to identity and tended to rebut any presumption that the remains were those of another person.

The jury retired following the chief justice's charge and after less than 3 hours of deliberation returned to the courtroom and rendered the verdict of guilty. Webster was sentenced to death.

After his conviction, Webster made a confession to a clergyman in which he admitted he had killed Dr. Parkman. He said that when they met at the medical college Parkman had refused to listen to his appeal for further time to pay off the debt and threatened to deprive him of his professorship if he did not. In a temper and fury, he seized a stick of wood and struck Parkman on the side of the head. Parkman fell instantly, and when

all Webster's efforts to resuscitate him failed, he saw no out but to remove and conceal the body.

The Jackson Case ¹⁰

This second case, which broke in 1959, involved the abduction and murder of the four members of the Jackson family of Louisa County, Va. The investigation of this brutal crime was long, intense, and widespread and captured the attention of millions throughout the central Atlantic States. As in the *Case of Webster*, however, our interest is confined to certain items of real evidence discovered in the course of the investigation; namely, a .38 caliber Colt Cobra revolver and a pair of plastic pistol grips.

The purpose of the real evidence in this case, unlike that in *Webster*, was to identify the accused as the murderer rather than to identify the victim. Upon this particular issue, considerable latitude in the admission of evidence is permitted after the corpus delicti has been established.¹¹ For example, circumstantial evidence such as marks or traces of the accused at or near the scene of the homicide about the time of its commission indicative of his presence or proximity, or articles found at the scene of the killing proved or admitted to be the property of the accused is admissible as tending to connect him with its commission.

Late one evening in January 1959, the Jackson family, consisting of the father, mother, and two infant daughters, left the house of relatives to return home by automobile. They never reached there. The next morning their empty car was found halfway home partly on the shoulder of an unlighted road. It was in working condition, the key was in the ignition, and there was gasoline in the tank. Skid marks of another car at a 45° angle to the road marked the pavement immediately in front of the Jackson automobile.

In early March 1959, the bodies of

Mr. Jackson and one of the children were found under a pile of sawdust and brush in Spotsylvania County, Va. Jackson had been fatally shot through the head. His hands were bound together by a necktie and his head had been severely beaten. In the opinion of the medical examiner of Virginia, Jackson had been killed by a .38 caliber bullet and his head wounds could have been caused by any number of objects including a pipe or a pistol butt. The child's body lay beneath that of her father. She had died of suffocation and exposure after being injured by a blunt instrument. A sifting of the sawdust and debris at the crime scene failed to produce the bullet, but the search uncovered two plastic pistol grips and Jackson's broken glasses. It was ascertained that the plastic pistol grips were the type used on Colt Cobra revolvers.

Late in March that year, across the State line in Maryland, the bodies of Mrs. Jackson and the other infant daughter were found in a shallow grave. A silk stocking was knotted around Mrs. Jackson's throat. Both she and the baby had been beaten about the head. These attacks with aspiration of blood caused their deaths.

As the investigation moved forward, suspicion was directed towards the defendant in the case, one Melvin D. Rees, Jr. Following his arrest for a crime not pertinent to this case, a search of his family home led to the discovery of a .38 caliber Colt Cobra revolver.¹² The revolver was found in an old accordion case, locked with a padlock and hasp, in a crawl space over the rafters in the attic. Attached to the revolver were gun grips made of simulated horn. The defendant admitted that the gun was his. A tracing of the revolver from the time of its manufacture in 1953 to its discovery in the accordion case disclosed that it had been shipped from the Colt factory in Hartford, Conn., to a department store in Atlanta, Ga., where it

was sold. The buyer was dissatisfied with the original equipment plastic pistol grips and replaced them with a set of simulated-horn grips which he fastened to the revolver. He retained the plastic ones. In 1957, he advertised the gun for sale in a newspaper. The defendant answered the advertisement and bought the revolver together with the extra set of plastic pistol grips.

Following the discovery of the .38 caliber Colt Cobra revolver in the accordion case in the defendant's family home, the revolver, along with the plastic pistol grips uncovered at the Jackson gravesite in Spotsylvania County, was forwarded to the FBI Laboratory in Washington, D.C., for scientific examination by its experts.

The blood examination at the Laboratory revealed minute amounts of human blood on the revolver in such places as the trigger, safety lever, main spring, and safety lever slot. These blood traces, however, were insufficient in amount for grouping purposes. No blood was located on the simulated-horn grips attached to the gun at the time of its discovery. A minute trace of blood, too limited in amount for either origin determination or grouping tests, was found in the screw hole of the left plastic pistol grip. The right plastic pistol grip contained no blood traces.

A toolmark examination was conducted at the FBI Laboratory to establish whether or not the plastic pistol grips could be associated with the Colt Cobra revolver. Such examinations involve microscopic studies to determine if a given toolmark was produced by a specific tool and include the identifications of objects which have forcibly contacted each other. In conducting examinations of this type, it is a known fact that tools and metal surfaces often have microscopic nicks and scratches which form a pattern individual to and characteristic of that tool or metal surface. When another

object comes in contact with that tool or metal surface it will often pick up that pattern of marks. A toolmark can definitely be identified with a source if sufficient microscopic markings are present.

No significant toolmark findings were made in regard to the left plastic pistol grip, but examination of the right grip, which contained a portion of a broken gun-grip screw, revealed the presence of scrape marks across its interior surface. It was theorized that the grips came detached from the gun possibly as the result of the application of some type of excessive force and that the scrape marks on the inner surface of the right grip could have been produced at that time. These scrape marks were sufficiently characteristic for comparison and possible identification of the object that produced them. The area of the metal frame of the Colt Cobra revolver suspected of having produced the scrape marks contained a contour of microscopic nicks and scratches.

Test impressions, using surface replica material, were made of the pertinent area of the revolver's frame. The pattern of markings produced in these tests was compared microscopically with the scrape marks across the inner surface of the right grip. It was concluded as a result of these examinations and comparisons that the right plastic pistol grip found at Jackson's gravesite had at one time been attached to the .38 caliber Colt Cobra revolver found in the accordion case and admitted by the defendant to be his. Photomicrographs were taken showing the comparison of the markings on these items of real evidence for trial use.

In February 1961, the defendant was tried in Federal court in Maryland for violation of the Federal Kidnapping Act in the abduction and interstate transportation of Mrs. Jackson and her daughter. Thereafter, he was also brought to trial by the

"Although the inherent capacity of real evidence to establish the truth has been expanded to an inestimable degree by the contribution of the natural sciences, its unique value can nevertheless be lost."

Commonwealth of Virginia for the slaying of Mr. Jackson in Spotsylvania County. At both trials, the FBI Laboratory experts testified to their findings in the examinations of the .38 caliber Colt Cobra revolver and the plastic pistol grips. The defendant was convicted on the Federal charge and sentenced to life imprisonment. He was found guilty of murder in the first degree on the State charge and sentenced to death.

The evidence of the association of the Colt Cobra revolver with the plastic pistol grips was characterized by one of the courts as "convincing" and by another as "admittedly the decisive proof" against the defendant. In that regard, it is noted that Chief Justice Shaw remarked in the *Case of Webster* that the relations and coincidences of some facts of a physical and mechanical nature with each other, from which reasonable inferences may be drawn, are "so decisive as to leave no doubt . . ."¹³

Conclusion

The two foregoing cases, one old and one new, illustrate not only the important part which real evidence has traditionally played in the vindication of the criminal law, as in the *Case of Webster* when forensic odontology was "not much less than a dream"; but also how the importance of real evidence has been enhanced in recent times by the application of the scientific method to its examination in the modern crime laboratory, as in the *Jackson Case*. Although the inherent capacity of real evidence to establish the truth has been expanded to an inestimable degree by the contribution of the natural sciences, its unique value can nevertheless be lost. It can

be lost if the investigating officer fails to recognize the potential relevancy that lies in an item of real evidence encountered in a particular case, or if he errs in collecting, identifying, packaging, and preserving it or in maintaining its chain of custody from the moment of discovery to the time of trial—the acid test of the worth of any criminal investigation.

FOOTNOTES

¹ Stryker, *The Art of Advocacy* 11 (1954).

² See McCormick, *Evidence* 384-394 (1954); McCormick, *Evidence* 524-542 (2d ed. 1972); 2 Wigmore, *Evidence* § 413 (3d ed. 1940); 4 Wigmore, *Evidence* §§ 1150-1169; 7 Wigmore, *Evidence* § 2129.

³ *Commonwealth v. Webster*, 59 Mass. (5 Cush.) 295 (1850).

⁴ *Rees v. Commonwealth*, 203 Va. 850, 127 S.E. 2d 406 (Va. 1962).

⁵ Wigmore, *Evidence* § 26, p. 401, n. i. (3d ed. 1940).

⁶ *Ex parte Jeffries*, 7 Okl. Cr. 544, 124 Pac. 924 (1912).

⁷ *Commonwealth v. Webster*, *supra*. See also Wigmore, *Principles of Judicial Proof* 50, 68, 84, 144, 209 p. 997 (2d ed. 1931); 1 Wigmore, *Evidence* § 149 (3d ed. 1940); Wigmore, *Evidence* §§ 266, 413; 7 Wigmore, *Evidence* § 2072.

⁸ Kenny, *Outlines of Criminal Law* 456 (18th ed. 1962).

⁹ See 40 Am. Jur. 2d, Homicide §§ 4, 284, 289, 432, 433; LaFave & Scott, *Criminal Law* 16, 17 (1973).


¹⁰ *Rees v. Commonwealth*, 203 Va. 850, 127 S.E. 2d 406 (Va. 1962). See also *United States v. Rees*, 193 F. Supp. 849 (1961); *Rees v. Peyton*, 225 F. Supp. 507 (1964); *Rees v. Peyton*, 341 F. 2d 859 (4th Cir. 1965).

¹¹ 40 Am. Jur. 2d, Homicide §§ 286, 426, 435.

¹² It was contended later that this search and seizure was unreasonable under the fourth amendment to the Federal Constitution, but all the Federal and State courts that examined this claim ruled that the fourth amendment was not transgressed and that the search and seizure was authorized by law and was reasonable.

¹³ *Commonwealth v. Webster*, *supra* at 314.

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- Sullivan, Judge Robert. *The Disappearance of Dr. Parkman*. Boston: Little, Brown & Co., 1971—a thorough, fascinating account and discerning analysis of the case of *Webster*. 

WANTED BY THE FBI



Photographs taken in 1968.

BERNARD STRIAR, also known as **Eugene Holland**, **Eugene Hollard**, **Leslie Robert Marlo**, **Benjamin Starr**, **Bernard Starr**, **Ben Strain**, **Ben Strair**, **Benjamin Strair**, **Bernard Strair**

Interstate Flight— Grand Theft

Bernard Striar is being sought by the FBI for unlawful interstate flight to avoid prosecution for grand theft, and a Federal warrant for his arrest was issued on August 19, 1968, at San Francisco, Calif.

The Crime

From December 1965, until May 25, 1968, Striar, while employed as an accountant, allegedly embezzled \$423,070 from a South San Francisco, Calif., fruit and produce company. He reportedly accomplished this by a "lapping" scheme, altering bank deposit slips, and transferring funds to a subsidiary of the firm.



Right index fingerprint.

Description

Age ----- 51, born May 20, 1924, New York, N.Y. (not supported by birth records).
Height ----- 5 feet 7 inches to 5 feet 8 inches.
Weight ----- 180 pounds.
Build ----- Heavy.
Hair ----- Brown.
Eyes ----- Green.
Complexion -- Medium.
Race ----- White.
Nationality -- American.
Occupations -- Bookkeeper, clerical worker, salesman, and travel agency operator.

Remarks ----- He has been described as being very congenial, is said to have the ability to gain the confidence of people with whom he comes in contact, is a Latin-music and dance enthusiast, enjoys baseball and football, likes to wear sports clothes, and is fond of showing off his money.

Scars and marks----- Scar above left eyebrow, vaccination scar on upper left arm.

Social Security Nos. used.. 569-76-1292, 080-18-1661.

FBI No. ----- 830 A.

Fingerprint classification:
17 L 1 U OH 12 Ref: U
M I T O I R

NCIC classification:
17 10 06 08 12 12 TT 12 08 09.

Caution

Striar, who has been hospitalized for "schizophrenic reaction," may have suicidal tendencies. He has been convicted of grand larceny and should be considered dangerous.

Notify the FBI

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

FOR CHANGE OF ADDRESS ONLY

(Not an Order Form)

Complete this form and return to:

DIRECTOR

FEDERAL BUREAU OF INVESTIGATION

WASHINGTON, D.C. 20535

NAME

TITLE

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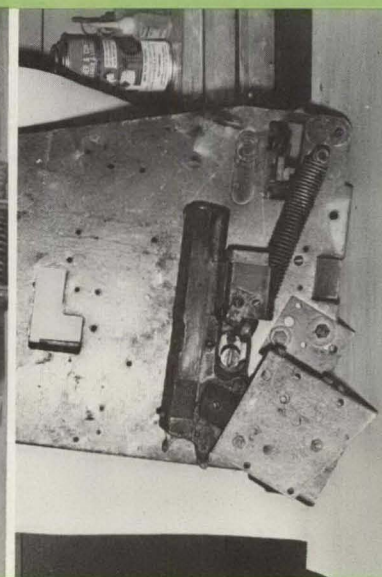
CITY

STATE

ZIP CODE

The Albuquerque, N. Mex., police have reported that a detective investigating a multiple homicide by firearms was seriously wounded by slugs fired from a .45 caliber automatic pistol rigged to shoot at waist-high level through the entrance door from inside a suspect's apartment. The pistol was wired for automatic firing, through a series of electrical relays and solenoids, when a light switch near the entrance was turned on. The mount for the pistol and much of the equipment necessary to produce this deadly boobytrap were obtained from commonly available coin-operated, food dispensing machines.

Shown below are a front and side view of the boobytrap pistol in its mount.



*From a National Bomb Data Center
Investigators Bulletin 75-3, dated
11/30/45.*

Pistol Boobytrap

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

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JUS-432

THIRD CLASS



QUESTIONABLE PATTERN

The questionable pattern presented here is a very common type, yet is the source of much confusion insofar as its classification is concerned. The pattern consists of two ridges ending on or about the same plane, plus a delta formation. Accordingly, it is classified as a tented arch. A reference search would be conducted in the plain arch group.