The Role of Identification in Law Enforcement: An Historical Adventure

John Edgar Hoover
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THE PUZZLE OF THE PAST

An infallible means of human identification is not only essential to effective law enforcement but also to the achievement of justice. Without the ability to indisputably distinguish one person from another, there would be no certain means to establish an arrested person's identity, to surely determine any previous record of his involvement with crime or, in many cases, conclusively separate the guilty from those who, for whatever circumstance, become innocently enmeshed in the occurrence of crime. That finger ridges—man's immutable marks of identification—also have the capacity to leave their impressions as incontrovertible testimony that their possessor was once at a particular place and touched certain objects there seems providential—at least to the law enforcement officer.

To many students of dactyloscopy—the science of fingerprint identification—it is puzzling that this knowledge eluded man for so long. There is intriguing evidence that in his earliest civilizations man may have recognized that the ridged patterns forming the friction surfaces of his hands and fingers were as uniquely personal to him, from among those of his acquaintance, as were his more obvious features.

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1 Instances of innocent persons arrested and convicted of crimes as a result of mistaken identity are not common, but, when discovered, they justifiably attract widespread attention. One of the most aggravated cases helped hasten, due to the period in which it took place (1877-1904), the adoption of new police identification methods. It involved a Norwegian by the name of Adolf Beck who despite his insistent avowals of innocence was, during the period 1895 to 1904, twice arrested, convicted, and imprisoned on the basis of his mistaken identification by witnesses as John Smith, alias "Lord Willoughby," who previously had been imprisoned and released for defrauding a series of women at London, England. Beck's plight was discovered during his second imprisonment and only after Smith was again arrested for defrauding women. G. R. M. CUTHBERT, SCIENCE AND THE DETECTION OF CRIME 14-16 (1958).
Artwork attributed to a primitive Indian culture, for example, pictures a human hand covered with rough representations of its subtle, ridged patterns and the skin creases which palmists find so prophetic.

Some scholars have interpreted Biblical passages as evidence that finger and handprints were recognized by early Christians as identifying marks. Artifacts have been uncovered that suggest that thumbprints were impressed on various clay seals in early China to identify their maker; that illiterates in the ancient Orient put their fingerprints on documents in lieu of a signature; that Palestinian potters of antiquity intentionally “signed” their creations with fingerprints; that contracts dating back some 12 centuries were affixed, perhaps to avoid fraud, with the fingerprints of the parties involved; and that in 16th century China some contracts for the sale of children bore the inked impressions of the hands and feet of these youthful chattels.

More tangible to the roots of criminal identification, however, may be a relic, claimed to be in the British Museum, which contains the testimony of a Babylonian officer who relates how he was ordered by a superior to make property confiscations, arrests, and obtain the defendants’ fingerprints.2

Unfortunately, distant history has not revealed the reasons for these early preoccupations with fingerprints and the distinctive patterns they form. Whether the potentialities for positive identification in fingerprint patterns glimmered centuries ago in the minds of man is not and probably may never be known. It is not improbable, however, that man’s ancient interest in fingerprints went beyond mere ceremony, the occult, superstition, or idle curiosity. If he suspected that human identity could be established through comparison of fingerprints, his age lacked only the scientific methodology to make these notions a certainty.

Awakening of Scientific Interest

Dr. Nehemiah Grew, a fellow of the Royal College of Physicians, England, in the course of a lecture in 1684 commented upon the ridged patterns appearing on the fingers. Two years later Marcello Malpighi, Professor of Anatomy at the University of Bologna, Italy, making use of a newly discovered instrument, the microscope, discussed in his treatise “certain elevated ridges” on the palmar surfaces of the hands which he perceived to be “drawn out into loops or spirals” at the ends of the fingers.3 More than a century elapsed before John Evangelist

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2 See B. C. Bridges, Practical Fingerprinting 11 (1942).
Purkinje, Professor of Physiology at the University of Breslau, Poland, published a thesis in which he vaguely defined nine varieties of patterns found "especially on the last phalanx of each finger." If these early scholars recognized the possibility of identification in the patterns of fingerprints, their works did not disclose it.

The inability to establish identity with certainty probably worked little hardship on the average citizen, particularly in the simplicity of most social organizations that preceded the Industrial Revolution. Criminal identification, by contrast, was always a vexing problem for those entrusted with enforcement of the laws. Witness testimony was commonly unreliable and offenders would simply disguise their identity by giving a different name at each confrontation with authorities. Providing officers or witnesses did not recognize or mistake them for another, as often was the case, this ploy served the criminals effectively in avoiding either detection or conviction. Past societies dealt severely with this problem by branding and tattooing various slaves and other outcasts, including criminals. This practice, a throwback to the ancient Greek and Roman civilizations, continued well into the 19th century.

Photography more than humanitarianism probably put an end to the barbaric practice of branding society's malefactors for identification as well as its punitive effect. The camera provided a new medium of identification which was eagerly embraced by law enforcement agencies the world over. By the late 1800's, "Rogues' Galleries" containing the photographs of thousands of criminals were commonly in use by major police departments. These photographs provided substantial assistance in identifying newly arrested offenders, unknown offenders through witnesses to their crimes, and in locating wanted fugitives. Photography impressively aided in the process of criminal identification, but it was soon discovered that it was not a panacea as some may have first thought.

Valuable as photography is, it has proved to be no more than a convenient extension of identification by witnesses who can be, and sometimes are, wrong. To make matters worse, inept photographic technique, grimacing subjects, inadequate accompanying descriptions,
and both deliberate and accidental factors that can dramatically alter physical appearance, further handicapped initial attempts to establish sure identification through photographs.

**APPLICATION OF SCIENTIFIC METHOD**

The French police is one of the oldest established law enforcement agencies in Europe. By the 1870's, the Prefecture of Police at Paris had compiled enormous archives of criminal records whose photographs and descriptions had become an equally huge problem to classify and file in a manner that would permit their most efficient use. Filing of these records by name was of limited value since this was the most variable of all criminal identifiers. Likewise, classifications into definitive categories based on physical features generally proved useless due to the imprecision in descriptive detail which tended to amalgamate physical types and characteristics into broad, unwieldy groups.

It was in this setting that Alphonse Bertillon, a clerk in the criminal archives section of the Prefecture of Police in Paris, devised the first scientific method for the identification of criminals. Bertillon was the son of a French physician and anthropologist. His maternal grandfather was a distinguished demographer. With his exposure to scientific method and the frustration he experienced in attempting to maintain the archives as an effective investigative aid, Bertillon struck upon the idea of taking precise body measurements of arrested offenders. From these several measurements of major planes of the body and certain of its appendages, he derived a numerical formula which enabled swift retrieval of a matching record regardless of an offender's attempt to conceal his identity with an alias. The measurements taken, using established anthropological techniques, were of portions of the body which were presumed to be unchanging throughout adult life. In combination, the measurements were calculated as improbable to be the same in any two individuals, thus establishing exclusive identity.

Bertillon's system of identification, known as anthropometry, but more commonly referred to as Bertillonage, incorporated a standardized and detailed method of recording physical descriptions as well as precise procedures in photographing offenders, both of which he to have his photograph taken. Photographs, of course, taken under such circumstances would have little value for identification purposes.

9 These consisted of eleven measurements: height, reach, trunk, length of head, width of head, length of right ear, cheek breadth, left foot, middle finger of left hand, little finger left hand, and the left forearm. A. BERTILLON, SIGNALETIC INSTRUCTIONS 15 (R. W. McClaughry transl. 1896).

10 In addition to pioneering anthropometry and law enforcement photography, Bertil-
also developed. Bertillonage was adopted by the Paris police in 1883. By 1887, some 60,000 Bertillonage records ("signalments") of criminals were on file at the Paris Prefecture of Police, and the successes of the system had become known throughout the law enforcement world. At the turn of the century, Bertillonage was in use or being considered by major police departments, principally in Europe and the United States.

Anthropometry had inherent weaknesses, however. It was not suitable for persons of less than mature growth who, nonetheless, probably comprised a substantial portion of all offenders. It also could not account for changes in measurements of adults due to injury, age, or disease. As its usage proliferated to greater numbers of police and penal bureaus, it became increasingly evident that the measuring apparatus was cumbersome, the process time consuming and, more importantly, the results highly susceptible to error—particularly when the system was entrusted to those not possessed with the zeal or competency of Bertillon. For example, measurements by two different operators of the same person often resulted in different measurements as did those by the same operator at different times. Finally, while it could in many cases identify previous offenders whom the police had in custody, it offered no assistance in the solution of that great imponderable of law enforcement: the identity of offenders not in its custody.

Ion developed the Portrait Parle (or speaking likeness) which by means of photographs or drawings of the most characteristic types of facial and body features attempted to standardize the terminology in physical descriptions. The system proved cumbersome for the average police officer on the street but helpful in establishing uniformity in descriptive material filed in police identification bureaus as well as in forming more accurate descriptions by witnesses of unknown suspects. Bertillon was also one of the first to study handwriting characteristics as a means of identification. H. T. F. Rhodes, Alphonse Bertillon 102-109, 128 (1956).

11 F. Galton, Finger Prints 155 (1892) [hereinafter Galton].

12 Accurate records concerning youth involvement in crime are a 20th century development. The literature of the 19th century, however, would seem to indicate that youthful criminality comprised a substantial portion of all serious crime. 29 percent of all Crime Index offenses (murder, forcible rape, robbery, aggravated assault, burglary, larceny $50 and over, and auto theft) solved involved persons under 18 years of age. 1970 FBI Uniform Crime Reports 33. If youth involvement with serious crime in the last quarter of the 19th century was anywhere near this proportion, it is evident that Bertillonage would not have been a reliable means of identification for a significant number of offenders.

13 Identification of an offender with prior criminal acts is not only important to the investigative and prosecutive processes but it is also useful in measuring the success or failure of the entire criminal justice system. Recidivism among criminals has always been thought to be high but, until the last decade, comprehensive data has been lacking. Beginning in 1963, the FBI Uniform Crime Reporting Program began to analyze, among other factors in criminal histories, the degree of recidivism among federal offenders. Thus far the study has found that recidivism is high in this group, supporting the notion that it is probably high among all offenders. For details see 1970 FBI Uniform Crime Reports 37-41.
THE ROMANCE OF FINGERPRINTING

When in 1883, Mark Twain’s book *Life on the Mississippi* was published, no thought of fingerprints as a means of human identification had been known to appear in American literature. Only two men in widely separated regions of the world, considerably distant from the United States, had by that time recorded their observations on that possibility and then only three years prior to Twain’s book. Despite this, among numerous stories of fiction in the book was one entitled “A Thumb-Print And What Came Of It,” which related how a distraught man had traced the identity of his wife’s and child’s murderer from a bloody thumbprint he found at the scene of the slaying. Disguising his search by posing as a fortuneteller, Twain’s character, Ritter, circulated in a company of soldiers one of whom he suspected was the killer. He painted the “ball” of his clients’ thumbs, took a print of them on paper and later would compare them with the incriminating thumbprint. This eventually led him to the murderer.

The rationale for this procedure, as told by Ritter in the tale, was the practice of an old French prison-keeper who recorded for future reference each new convict’s thumbprint because “there was one thing about a person which never changed, from the cradle to the grave—the lines in the ball of the thumb; and . . . these lines were never exactly alike in the thumbs of any two human beings.” The old man proved his theory among Ritter’s friends and acquaintances, never finding any with the same thumbprint.

How much of Twain’s story was based on acquired knowledge or upon a notion that may have persisted through the ages concerning the uniqueness of human fingerprints is vague. The recently revealed research on this subject was certainly not widely known, and it would appear that it was only seriously accepted by a few of those who were aware of it.

What has been factually determined is that two men generally regarded as the fathers of modern fingerprint science corresponded in 1880 with the London, England, magazine *Nature*, which subsequently published both of their letters. The first was written by Dr. Henry Faulds, a Scottish missionary working in a hospital at Tokyo, Japan. His letter revealed his study of the “skin furrows in human finger[s].”

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14 The year before, it was later learned, Mr. Gilbert Thompson, an American geologist working in New Mexico, made out a payment order to a member of his staff on which he wrote the amount payable over his thumbprint. His purpose was to prevent any alteration which, of course, might also alter his thumbprint. GALTON 27.

15 S. CLEMENS, *LIFE ON THE MISSISSIPPI* 270 (1883).

suggesting that the patterns they form could have traceable ethnic and hereditary origins and that they could be important in the identification of criminals. On one occasion, Faulds wrote, he had been able to identify an individual from the latent impression of “greasy fingermarks”17 and another time, on the basis of fingerprint comparison, he had eliminated from suspicion a person thought to have left some “sooty finger-marks”18 on a white wall. Faulds also told in his letter how he collected fingerprints from willing persons, impressing their fingers on a smooth surface thinly spread with printer’s ink. He then transferred these inked impressions in the same manner onto paper — exactly the same procedure used in taking fingerprints today!

The other man, William James Herschel, British administrative official for the Hooghly district, Bengal, India, was in England at the time Faulds’ letter was published in *Nature*. In response, he wrote the magazine stating how he had been taking fingerprints for more than 20 years and had successfully introduced their use in his district for identification purposes. Herschel claimed that fingerprint records (“sign-manuals”)19 had prevented fraud and impersonation in handling pensioners and in the property registration office under his supervision. Moreover, wrote Herschel, fingerprints had established criminals’ identities with certainty when required of each prisoner upon commitment to jail. Contrary to Faulds’ observation, his inspection of thousands of fingerprints, said Herschel, had given him no reason to believe that they revealed ethnic or hereditary patterns.

The Faulds and Herschel letters began a controversy which has continued to this day: who between them should be awarded credit for having discovered fingerprints as a scientifically feasible method of establishing human identity. Subsequent evidence indicated that Herschel had as early as 1858 required Indian natives to affix their hand and fingerprints to contracts with the hope that the ceremony of this procedure, at least, would discourage default or dishonesty. Apparently Herschel had at first no thought of identifying anyone from such prints, but his interest in this possibility was aroused after he noticed that none of the curious designs they made were exactly alike. In 1877 Herschel wrote the Inspector General of prisons of Bengal informing him of his experiments with fingerprinting and recommended its use in the prisons as a means of prisoner identification which would prove “far more infallible than photography.”20

17 Id. 16.
18 Id.
19 Id. 21.
20 Id. 11.
The Inspector General did not approve Herschel's recommendation, and both he and Faulds were to suffer other disappointments in gaining acceptance of their theories of fingerprints as a means of identification.

Had it not been for Sir Francis Galton, fingerprinting might have continued to be ignored as the premier method of human identification. Galton, a renowned anthropologist and cousin of Charles Darwin, of *On The Origin Of Species* fame, had been attracted to Bertillonage not only as a system of identification but more for its potential as a means to study hereditary and racial traits. With characteristic thoroughness he also acquainted himself with the work of Herschel and immediately recognized that fingerprints held far more promise as an infallible means of human identification than did anthropometry. Galton's research into fingerprinting brought it scientific experience, order, and prestige. More important, however, was the fact that by 1892 Galton published a book, *Finger Prints*, as well as a number of pamphlets which advanced the cause of dactyloscopy by giving it much needed publicity.

Growing out of Galton's research and writings on fingerprinting was an article published in the French magazine *Revue Scientifique* which described his work. This article along with material concerning the identification system of Bertillon was brought to the attention of Juan Vucetich of the Argentine provincial police in 1891. Vucetich, a statistical clerk of the provincial police at La Plata, was instructed to establish a Bertillonage bureau in the La Plata department. Vucetich found little merit in anthropometry but was captivated by the possibilities of fingerprinting. Fortifying his new-found knowledge with experiments of his own in fingerprinting, Vucetich in that same year devised the first workable system of classifying fingerprints for effective law enforcement use—a goal which had inexplicably escaped the patient pursuit of Galton over many years.

Without the official approval of his superiors, Vucetich maintained, along with Bertillonage measurements, fingerprint records at La Plata of offenders. Only after a murder was solved in 1892 in the small Argentine coastal town of Necochea by means of a latent thumb-print and the superiority of fingerprinting over anthropometry was consistently demonstrated by Vucetich, did the Argentine government adopt fingerprints in 1896 as the official method of identifying criminals. Like pioneers Faulds and Herschel before him, Vucetich found that fingerprinting was such a simple and handy means of identification
that proposals for its use unaccountably generated suspicion and rejection rather than the acclaim and acceptance it deserved.

Knowledge of Vucetich's success in classifying fingerprints and putting them to use in the first police criminal identification bureau of its kind was apparently not known (or at least not widely so) outside South America. In the same year that fingerprinting was adopted in Argentina, Edward Henry, Inspector General of the province of Bengal, India, independently developed a fingerprint classification system which he utilized successfully to supplement Bertillonage in India. The following year anthropometry was abandoned throughout India in view of the superiority of fingerprinting.

Paralleling the Argentine experience, Henry's promotions of fingerprinting in his sphere of influence, which of course then encompassed England, was given a considerable boost by the solution of a murder case through the identification of a latent fingerprint discovered at the scene of the crime.

Acting upon the recommendation of a committee called together by the British Home Office to evaluate the comparative worth of Bertillonage and fingerprinting—before which both Galton and Henry testified—the latter was adopted in England in 1901 as the official police identification system. Henry (who was later knighted) was subsequently appointed to head the Criminal Investigative Department of Scotland Yard.

Although the classification and search problems for a fingerprint record system had been solved by both Henry and Vucetich, the use of anthropometry lingered on in many police departments in Europe and the United States for a number of years. Quite frequently the two coexisted in one record system which used a portion of each. This practice manifested itself in the taking of only a few of the total measurements required in Bertillonage and in the printing of less than all ten fingers. As a result, when no previous fingerprint record was available for an offender, the fewer measurements taken of him heightened the chance for error in his identification.

After the turn of the century there were two episodes involving fingerprints that dramatized their infallibility and universality as a method of criminal identification. They also tolled the demise of Bertillonage.

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21 The Henry and Vucetich methods of classification are the base for all ten-finger identification systems. It is the basic Henry system, with modifications and extensions, which is used by the FBI and throughout the United States. The Vucetich system is used in most Spanish-speaking countries and a number of other countries as well.
The first of these occurred in 1903 when Bertillonage was still in widespread use in law enforcement and penal institutions throughout the United States, including the Federal Penitentiary at Leavenworth, Kansas. In that year Will West, a newly arrived prisoner at Leavenworth, denied to the admittance clerk that he had ever been an inmate there before. West was measured and the classification produced from this procedure was searched through the Bertillonage files of the prison. Contradicting his denial, the search produced a record for a William West who had, excepting slight differences, the same measurements. The record also contained a photograph which the astonished prisoner agreed was a striking likeness of himself. Provoked by West's continued denial that the record was his, the clerk examined it more closely and, to his surprise, discovered that the convict it described was then confined at the penitentiary for murder and could not be the prisoner before him.

Subsequent fingerprinting of both Wests disclosed that they had distinctively different ridge patterns on their fingers.

The other episode took place three years later in New York City when an alert detective arrested a sneak thief plying his trade on the third floor of the old Waldorf-Astoria Hotel. In a clear British accent the prisoner loudly protested his arrest, threatening that his government would soon demand an explanation for this indignity to him. The New York City Police Department had not adopted fingerprinting in its operations but, fortuitously, the arresting officer had been trained in its use by Scotland Yard. He more than called the defendant's bluff by fingerprinting him and mailing a copy of the prints to Scotland Yard which soon replied identifying the offender as a well-known London hotel thief with twelve prior convictions.22

Five years later in a case involving the same New York City detective, the drama of fingerprints as courtroom evidence was sensationallly demonstrated. Latent fingerprints on a window pane had been found at the scene of the burglary of a fashionable dress shop. The detective was called to testify as to the identity of the fingerprints, and defendant's counsel strived mightily to discredit his testimony that they were identical with those of their client, a notorious second-story man. Realizing the importance of the detective's testimony and the necessity to convincingly establish his expertise in this novel area of identification, the judge in the officer's absence had each jury member impress his fingerprints on a courtroom window and then had one of the twelve again place his fingerprints on a separate pane of glass.

When the detective returned to the court, the judge instructed him to identify which set of fingerprints on the window was duplicated on the pane of glass. Within a few minutes the officer identified the correct prints, thus removing any doubts as to the ability of fingerprints — or the law enforcement officer examining them — to identify their owner. The case received widespread publicity as the first conviction in New York State on the basis of fingerprint evidence.\textsuperscript{23}

**FBI Identification Division**

While the light that illuminated fingerprinting as a method of identification originally came from the East, it was in the West that it met the greatest challenges and fulfilled its highest expectations. With the law enforcement world then bristling with new programs and procedures in identification, the International Association of Chiefs of Police established in 1896 the National Bureau of Criminal Identification (NBCI) at Chicago, Illinois. Its purpose was to compile and exchange criminal identification data among the complex array of law enforcement agencies that existed in the United States. This Bureau later moved to Washington, D.C., where it acquired a valuable fingerprint collection. In 1904, a similar exchange service of fingerprint records for offenders was instituted at the United States Penitentiary at Leavenworth. It was not until 1924, however, that the exciting potential of fingerprint identification began to be realized. In that year the Bureau of Investigation\textsuperscript{24} of the Department of Justice was authorized by Congressional enactment to take custody of the combined identification records of the NBCI and Leavenworth Penitentiary, which records together totalled more than 800,000.

The FBI's Identification Division was established to organize these records into an efficient nationwide exchange of criminal identification data which would be available without cost to all authorized law enforcement agencies. The service developed by the Identification Division met with immediate success, and in the less than six months of its first year's operation had 987 law enforcement agencies cooperating in the exchange. Much more important though than the considerable benefit derived in identifying arrested offenders was the potential this fingerprint collection held for the solution of crimes.

A striking example of this potential occurred in the armed robbery of a Lamar, Colorado, bank in May, 1928. After one of the bandits

\textsuperscript{23} Id.

\textsuperscript{24} The Bureau of Investigation was later known as the Division of Investigation and was not officially titled the Federal Bureau of Investigation until 1935.
was wounded by the bank president, both the official and his son were shot before the injured robber and his three accomplices escaped with two other bank employees as hostages and $219,000 in cash and bonds. A dragnet by local law enforcement officers failed to locate the bandits but did discover the bullet-riddled bodies of one of the hostages and a doctor who had been lured to aid the wounded criminal. A police fingerprint expert from an adjoining state was summoned to examine the dead physician's car which also had been found wrecked nearby his body. The search for fingerprints seemed useless since the car had obviously been wiped clean. But the officer's dogged determination was rewarded when, under the strokes of his dusting brush,25 there appeared on the corner of one of the car's windows a faint and fragmentary latent fingerprint. An enlarged photograph of this print was subsequently forwarded to the FBI Identification Division which was unable to search it against its records since they were necessarily classified and filed on the basis of all ten fingers for each fingerprint record. Due to the viciousness of the crime, however, a decision was made to have all supervisors in the Identification Division memorize the latent print as best they could in the long-shot hope that one of them might someday come across its matching print.

More than a year following this robbery-murder, a fingerprint record for William Harrison Holden was received from the Stockton, California, Sheriff's Office. It was no surprise to the FBI supervisor who searched this record that Holden turned out to be quite another person entirely: Jake Fleagle who had served time for robbery in the Oklahoma State Penitentiary. After confirming this identification by close comparison of each fingerprint pattern of both "Holden" and Fleagle, the supervisor set aside the cards momentarily—just long enough for a glimmer of recognition to run through his mind. He had seen one of those fingerprints before—but where? Another perusal of the cards sent him back to the files to check several hunches. Then it all came rushing back—one of the fingerprints was identical with the latent fingerprint from the Colorado robbery-murder case.

As a result of this identification, Fleagle (who had subsequently been released at Stockton) was located, shot, and killed when he fired at officers attempting to apprehend him. His three accomplices were subsequently identified and four innocent suspects who had been charged with the crime earlier were released.

25 Powder brushed lightly over a hard, smooth surface touched by the human hand will cling to any grease or moisture impressions left by the ridges of the hand's friction surface, making (if a contrasting powder is used) the details of its pattern visible against the background.
The Fleagle case was one of the first in a long series of investigations of major attention in which the FBI Identification Division has significantly contributed evidence by the identification of latent fingerprints.26 The need for a latent fingerprint service grew in succeeding years resulting in the formation of the Latent Fingerprint Section of the FBI Identification Division in 1933.

Utilizing the most experienced of its fingerprint identification specialists, the FBI Latent Fingerprint Section began to compile and classify on a single fingerprint basis the prints of notorious criminals and suspects identified with major crimes. The work of this section generally consists of comparison of latent finger, palm, and even foot impressions against those in the major case files or with the submitted prints of logical suspects. The proficiency of this special identification service is attested to by the fact that in 1971 more than 33,000 cases were submitted to it which resulted in more than three million fingerprint comparisons and the identification of 4,900 suspects.

The year 1933 also witnessed the beginning of a significant expansion of FBI identification functions. In that year more than 140,000 fingerprint records of government employees and applicants from the United States Civil Service Commission were acquired to form a separate Civil Identification Section of the FBI Identification Division. These civil fingerprint records grew enormously with the later addition of alien and armed forces fingerprint records which in 1943, for example, swelled FBI fingerprint receipts for that year to an all-time high of 28,733,286 or an average daily workday influx of 93,540 records. This civil section has down through the years consistently provided, to law-abiding citizens in the file, protection from loss of identity through amnesia or the disfiguring circumstances of some deaths.

The humanitarian potential for these expanded civil fingerprint files became evident in 1940 as a result of a commercial airline crash 40 miles outside Washington, D.C. FBI fingerprint identification specialists were sent to assist in identifying the deceased among whom were two FBI employees who had been passengers aboard the flight. This spurred formation of the FBI Disaster Squad which since 1940 has furnished identification assistance, at the request of appropriate authorities, in 93 major disasters including some abroad which involved United States citizens. These have encompassed aircraft and bus crashes, ship accidents, fires, explosions, and hurricanes. Of those disasters in

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26 Just a few of the important FBI cases of recent years would include the assassination of former President John F. Kennedy in 1963; the murder of Dr. Martin Luther King, Jr., in 1968; and the kidnaping of Barbara Jane Mackle in 1968.
which identification assistance has been extended since 1958, FBI experts have identified from finger or palmprints more than 74 percent of an estimated 2,005 victims from whose bodies prints could be found.

The number of fingerprint records in the FBI Identification Division is the largest known of any comparable repository in the world. At the end of 1971 these amounted to more than 197 million sets of fingerprints representing approximately 81.5 million persons of whom more than 62 million were in the noncriminal category. These civil fingerprints consist of applicants for Federal government and certain other miscellaneous positions, members of the armed forces, aliens, and those persons who have voluntarily submitted their fingerprints for personal identification reasons. In its 47th year of operation, the Identification Division has over 15,000 contributing agencies for which it identified some 43,000 fugitives in 1971.

The scope and accomplishments of the FBI Identification Division truly represent a separate chapter in the role and history of law enforcement identification. It has brought to realization most of the dreams of early identification pioneers and more than rewarded their efforts and sacrifices to develop scientific procedures in the identification and detection of criminals.

The Future

Law enforcement is entering a new era in which the computer offers breathtaking accomplishments in the identification and detection of criminal offenders. This new and developing capability comes none too soon. Opportunities for crime abound in our modern society, and the effortless mobility available to the lawless has permitted their growing ranks that necessary step ahead to escape detection and apprehension.

It is not enough in this modern age to learn the true identities of suspected offenders days or even hours following a confrontation by arrest, interrogation, or their association with evidence of a crime. The easy flight of felons to distant sanctuaries and the ever-present possibility of their destruction and concealment of vital evidence, at the first sign of suspicion, have made imperative the need for vital on-the-scene crime and criminal identifying data. Frequently these are when an officer is

27 Vucetich championed fingerprinting of the entire population of Argentina which proposal was enacted into law by the Argentine Parliament in 1916. Efforts to carry out the program provoked so much resistance and protest, however, that the law was repealed the next year. The Concise Encyclopedia of Crime and Criminals 330 (H. Scott ed. 1961).

28 Serious crime in the United States during the previous ten-year period rose 176 percent while the population increased only 13 percent. 1970 FBI Uniform Crime Report 2.
walking his beat, patrolling a highway, or examining a crime scene. To reduce the time between confrontation with the criminal suspect and discovery of his background will enable law enforcement to discharge its duties with swift decisiveness—which, of course, may exonerate the innocent as well as implicate the guilty. The occurrence of serious crime demands this capability on the part of law enforcement, and the public has every right to expect it.

To bridge this gap between the occurrence of crime and the identification of its perpetrators, the FBI has initiated two far-reaching programs which should prove to be major milestones in the annals of modern law enforcement.

The first of these, the National Crime Information Center (NCIC), grew out of the recognition that dissemination among law enforcement agencies of definitive identifying data on crimes and criminals lagged far behind the discovery of most crimes. The NCIC, which became operational in 1967, is a high-speed information exchange system that has a computerized central index of vital, nationwide law enforcement data. The NCIC computer, located at FBI Headquarters in Washington, D.C., is electronically linked with control terminals covering all 50 states, the District of Columbia, and Canada, and will be connected soon to Puerto Rico. Utilizing the immense capacity of the computer to store vast quantities of index-type records and instantly retrieve and transmit relevant data from them, the NCIC was developed with the concept that each state will establish a computer control terminal which will serve as a direct tie-in to the NCIC central index, as well as itself serve as a computerized communications and exchange point for all duly constituted law enforcement agencies in the state. The NCIC central computer facility contains an index of documented law enforcement data only. Generally, this data consists of identifying information concerning fugitives on whom a warrant has been issued; descriptions of certain serially identifiable property which has been reported stolen, lost, embezzled, or counterfeited; and items, such as the license number of a getaway car, identified with a crime or a felon’s flight to avoid apprehension. This central index can be interrogated within a few minutes by any officer, regardless of location, who has a means of communication with his headquarters. Replies to inquiries are usually received in seconds.

Since November, 1971, the NCIC has also been able to furnish the criminal histories of certain arrested persons who have been fingerprinted previously within the Nation’s criminal justice system. The Criminal History Program of the NCIC is limited to a relatively small
number of criminal histories at present but will provide a substantial identification reservoir as cooperating law enforcement agencies in the NCIC network complete their conversion of criminal histories of active offenders to computer storage. Similar data are available from the FBI Identification Division's criminal fingerprint files, but NCIC is shrinking from days to minutes the time required to obtain this essential information.

Five years after beginning operation, the NCIC central computer now stores about 3.5 million records and has handled as many as 100,000 transactions in a single day. Within minutes and usually seconds, the NCIC is bringing vital law enforcement information to the officer on the street, enabling him to make quick determinations leading to the apprehension of dangerous fugitives, the solution of concealed crimes, and the recovery of valuable stolen property.

The second program of the FBI to improve law enforcement identification procedures is the complete computerization of its massive criminal fingerprint file. The system envisaged will have the capability to electronically scan, read, and classify questioned fingerprints and retrieve any previously entered record on them. The program is proceeding under development contracts which are now nearing fruition. It is anticipated that by the end of this year prototype fingerprint scanning equipment will be available for the FBI Identification Division to implement a pilot system for tests and evaluation.

With the lightning-fast communications capacity already available in the nationwide NCIC network, the criminal fingerprint records of the FBI will be swiftly available to far-flung law enforcement agencies. No longer will a dangerous wanted criminal be able to continue his flight after having been arrested on a minor criminal charge under an assumed identity and then released while his fingerprint record is being determined. Neither will a clever suspect's protestations during interview serve to conceal his true identity or prevent his immediate association with fingerprint evidence found at a distant crime scene.

It is hoped that the entire file of computerized criminal fingerprints stored at FBI Headquarters will one day have the capability of being selectively scanned for comparison with a single latent print found at the scene of a crime. It is also probable that electronic scanners may someday read and classify finger and palmprints directly from the surface of the human hand. With these exciting possibilities, an incriminating latent fingerprint could be, after appropriate classification, transmitted directly from a crime scene to the FBI Identification Division for matching or elimination against each fingerprint of all crim-
inals on file. Correspondingly, with future equipment improvements, it is conceivable that a criminal suspect's identity may be instantly determined by simply placing his hand on an electronic scanner at police headquarters—or even one mounted in a patrol car!

**Identification and the Law**

The law influencing law enforcement identification procedures is as varied as are the methods of identification. But, on the issue of positive identification, such as fingerprinting, the law seems clear: that under reasonable and compelling circumstances law enforcement has the right to demand it.

There is no dispute over the authority of law enforcement to require positive identification from an offender in its lawful custody. His entry into the criminal justice system, as the United States Supreme Court has observed, carries with it an obligation by the arresting law enforcement agency to know exactly who it is it holds and must produce at subsequent proceedings. Submission to fingerprinting in such circumstances may be compelled of the offender should he refuse or resist compliance. The Supreme Court has noted in such a case, the accuracy of fingerprinting as a positive means of identification is not impaired by an offender's unwillingness to cooperate.

As law enforcement reaches out with new technology and proficiency, its attempts to identify suspects not in custody increasingly have become an issue—particularly in the focused light of Supreme Court decisions of recent years which have required it to be more responsive to Constitutional limitations prescribed in the Bill of Rights. On this issue the fourth, fifth, and sixth amendments converge.

Most perplexing is the problem posed in fingerprinting a suspect not in custody for comparison of his prints with unidentified ones found, for example, at the scene of a murder under circumstances that strongly suggest they are those of the killer. In the absence of a clear consent, to fingerprint the unwilling suspect would require a degree of detention and compulsion (however brief) which would cut across the reasonableness standard of the fourth amendment. If probable cause for the suspect's arrest were present, there would be no conflict. He would be arrested, fingerprinted, and the comparison made with the

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29 United States v. Smith, 393 F.2d 687 (6th Cir.), *cert. denied*, 393 U.S. 885 (1968); Pearson v. United States, 389 F.2d 684 (5th Cir. 1968); United States v. Kelly, 55 F.2d 67 (2d Cir. 1932).


crime scene latent prints. This of course could, by the stigma of arrest, lead to an even greater injustice to the suspect than illegal detention if his prints are found not to match with those at the crime scene. Therefore there are two compelling reasons for law enforcement to seek identification by fingerprinting of logical suspects of crimes in which incriminating latent fingerprints are found: to solve the crime by identifying the latent, crime-scene fingerprints and to eliminate from further suspicion those logical suspects whose fingerprints do not match this evidence. The answer to this dilemma may be in obtaining a court order based on cause, but less than that required for arrest, which would command a suspect to submit to fingerprinting for comparison with those found at a crime scene. The Supreme Court has suggested such a procedure in Davis v. Mississippi,\textsuperscript{32} in which it reversed the conviction for rape of the defendant whose fingerprints were found on a window used by an attacker to enter the home of a woman whom he brutally raped. The reversal was based on the illegal detention of the suspect to obtain his fingerprints for comparison with those at the crime scene.

Two bills\textsuperscript{33} have been introduced in the first session of the current Congress which would provide for the issuance of judicial orders requiring a person to submit to nontestimonial identification procedures, including fingerprinting, as may be justified. Both Colorado\textsuperscript{34} and Arizona\textsuperscript{35} have adopted similar measures which, following the filing of an appropriate affidavit setting forth justification for the request, may enable a law enforcement officer to obtain court authority to temporarily detain an individual for fingerprinting or examination of other identifying physical characteristics that could be instrumental in the solution of a crime.

As far back as 1910, the Supreme Court has held that the fifth amendment injunction that "[n]o person . . . shall be compelled in any criminal case to be a witness against himself . . .," is not violated by using a person's body as evidence.\textsuperscript{36} In Schmerber v. California,\textsuperscript{37} a 1966 decision which involved a blood sample taken from defendant against his will, the Supreme Court noted that "compulsion . . . which makes a suspect or accused the source of 'real or physical evidence' does not violate . . ." the fifth amendment, including " . . . compulsion to submit to fingerprinting . . . ."

\textsuperscript{32} 394 U.S. 721 (1969).
\textsuperscript{34} COLO. R. CRIM. P. 41.1. (1970).
\textsuperscript{35} ARIZ. REV. STAT. § 13-1424 (1971).
\textsuperscript{36} Holt v. United States, 218 U.S. 245 (1910).
\textsuperscript{37} 384 U.S. at 764.
As for the sixth amendment rights to counsel for an accused, the Fifth Circuit Court of Appeals has decided a case in point on the issue of fingerprinting. In *Pearson v. United States*, the defendant was convicted based on a comparison of his fingerprints—which were taken without the presence of counsel following his arrest—with a latent fingerprint impression found on a stolen government check he was alleged to have cashed. Denying defendant's contention that the identification was tainted since he was not represented by a lawyer at the time his fingerprints were taken, the court affirmed his conviction on the grounds that neither his fifth or sixth amendment rights had been derogated by the absence of counsel. It would follow, providing reasonable and lawful means were utilized to obtain the fingerprints of a suspect not in custody, that his sixth amendment right to counsel would not be prejudiced in this identification process.

**Conclusion**

The role of identification is as important to law enforcement as is its authority. Without a certain means to establish human identity, law enforcement performance would at best be slipshod and at worst cause grievous injustices to innocent citizens. Identification of criminals stepped from the darkness of uncertainty nearly a century ago into the clear light of scientific procedures. This began the saga of modern law enforcement. Today, law enforcement, with the remarkable capability of computer technology, is entering a new era in which its performance promises to far outrival its most notable accomplishments of the past. The concealment of crime and guilt is considerable, but the margin of time that often shields the criminal from discovery is narrowing. In this, all of law enforcement and the readers of *St. John's Law Review*, as well, can take heart.

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38 389 F.2d 684 (5th Cir. 1968).