# FINGER-PRINTS

#### BY JOHN NICHOLAS BEFFEL

YTHS accumulate substance through reiteration. The renegade Pullman porter who set himself up as the Emperor Jones on a Caribbean island where there was no silver spread the legend that only a silver bullet could kill him, and that legend was like a protecting mantle of steel, for the uncivilized natives accepted it unquestioningly. Civilized people in the United States and around the earth have been long fed on the doctrine that finger-print identification is infallible. They believe, because they have read it innumerable times in the newspapers and have seen it worked out in the movies, that if a person's finger-mark is discovered at the scene of a crime, that person necessarily has a guilty connection with that crime. One man has been hanged in Chicago solely on such evidence; and in New Jersey Governor Edwards permitted another to go to the electric chair in 1921 following a conviction based chiefly on finger-print identification, despite affidavits from reputable persons that the defendant was out of the State at the time of the murder he was accused of committing.

Finger-prints were used as seals on documents in China before the time of Christ, and in various Old World countries through the subsequent centuries. Their practical modern use was begun in India in 1858, when they were utilized by William Herschel, a clerk for the East India Company, to validate commercial papers signed by natives. Late in the eighties Francis Galton, the English scientist, made a study of the subject, and devised a system of classification whereby finger-impressions could be used by the police for identifying criminals. He published his scheme in 1892. Nine years later finger-print identification was adopted by the British police, and shortly afterward it gained a foothold in the United States, being taken up first in New York City.

Galton applied mathematics to the patterns he found on human finger-tips, and expressed the opinion that only once in 64,000,000,000 times was the exact duplication of a finger-print possible. A later investigator, M. Balthazard of France, gives the ratio of possible duplications as one in 1,000,000,000,000,000,000,000,000,-000,000,000,000,000,000,000,000,000,-000,000. You may take your choice. Such theorizings are solemnly laid down as law by finger-print experts in courtrooms, and are given credence by judges in their instructions to juries. But it must be obvious that they are not identical with absolute truth. There is no telling, indeed, when Nature may produce duplicate fingerdesigns, especially in one family. There are on record two instances of very close resemblances in near relatives. The thumbprints of J. Clavering Frederick, municipal finger-print expert in Philadelphia, and those of his son show a great similarity, and the Bertillons in Paris once found 30 points of resemblance between the imprints of twin brothers. Yet only 33 points of resemblance were established between the bloody thumb-print found in the home of Clarence Hiller, slain in Chicago in 1910, and the imprint of Thomas Jennings, who was hanged for murdering him.

For twenty years the detection and conviction of men on finger-print evidence has made good copy for the police and court

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reporters. There is always something magical and awe-inspiring about the process, something fateful and inevitable, something pointing to a never-sleeping Nemesis that cannot be eluded. The reporters echo the police doctrine that there are no two finger-prints exactly alike, and that it is useless for a criminal to mutilate his fingers, for the skin-design can never be altered; if injured, it will grow again as before. Meanwhile, correspondence schools of finger-print instruction come into being, advertising widely and holding out the lure of rich rewards to graduates. Not even a high-school education is necessary to matriculate. If one can read and write English one may become an expert by studying in one's spare time for a few months. A course costs but \$70, in easy payments. So a great multitude of "experts" spring up all over the country, in and out of the police departments.

### Π

But now all these experts face the danger of learning that their jobs don't mean anything. For Albert Wehde, a Chicago jewelry engraver and photographer, has come forward with the news that he can forge finger-prints so perfectly that no expert can detect the counterfeit from the original. He does not mean forgery in the same sense as forgery of handwriting. Counterfeited signatures deceive only the layman, as a rule; under the microscope of the expert the fraud is manifest. Wehde uses a transfer-method which defies the microscope. He could lift a finger-impression made by John Jones on a drinking glass in Boston and plant it on an automobile door involved in the commission of a homicide in Dedham, 20 miles south, and on the strength of that evidence, under the prevailing rulings of American courts, Jones could be convicted and sent to the electric chair, even though he had never been in Dedham. Or Jones's finger-print might be taken from a police record-card in Boston, where it was placed when he was arrested

for automobile speeding. Such a frame-up might be engineered either by the actual perpetrator of the murder or by somebody connected with the police who wanted to get Mr. Jones.

Let us trace the procedure from the beginning: First, there is a daylight pay-roll robbery in Dedham. The bandits escape in a Buick car. In a wood a few miles away an abandoned Buick is found. Finger-print experts from Boston are summoned: they photograph the numerous finger-impressions which appear, more or less legible, on different parts of the car. The prints made by the cops themselves are eliminated (they are always immune from suspicion!), but photographs of the other imprints on the automobile are disseminated in police circulars and descriptions of them are broadcasted by radio, a system of numerals having been devised for transmitting them. Presently the Boston police, in checking their records, discover that one of the imprints "found" on the murdercar near Dedham tallies exactly with a digital print of John Jones, as shown by the registration made when he violated a traffic law. And Jones has been known to drive a Buick car. So he is arrested. He protests that he is innocent, but he is subjected to the third degree, kept sleepless when he will not confess, and worried until he is on the verge of exhaustion. Finally the trial comes, and he goes into court haggard and wild-looking. He is compelled, by the rules prevailing in cultured Massachusetts, to sit in a steel cage, open at the top, with guards on either side. The whole setting is psychologically against him.

The finding of the automobile in the woods is detailed by witnesses, and a finger-print expert swears that he found a certain finger-print on the door of the car, and exhibits a photograph of it, and also another photograph which he declares is known to be that of Jones's finger-impression. He takes oath that the two photographs are identical, and the jurors, on examining both, discern that this is true.

The expert quotes Galton and Balthazard as proof that there is only one chance in millions of two finger-impressions ever being exactly alike. Then a woman, let us say, is put on the stand. She testifies that she saw the bandit-car escape—saw it briefly while it traveled a few yards at high speed, and while she stood in a second-story window, 70 feet from the automobile's path. In that car, leaning out, was a dark man about 35 years old, of medium height. Jones, the defendant in the cage, answers that description. She identifies him as the man she saw in the automobile. At the preliminary hearing, months before, she wasn't certain that Jones was the bandit who leaned out of the car, but now she is positive.

Jones, taking the stand in his own defense, declares that he was in Boston all day on the date of the crime, didn't work that day because he had to see about getting a passport for a trip abroad, had lunch with several friends, and remembers meeting another man on the street and talking with him about a certain theatrical performance. He swears that he was never in Dedham until he was arrested and taken to the police station there. All the acquaintances he mentions having met on the day of the murder also take the stand, and corroborate his story. But the jury, greatly impressed by the finger-print evidence, disregards these witnesses and accepts the testimony of the expert-as it has a right to under the court's instructions-and finds Jones guilty. He is sentenced to the electric chair, and the higher courts uphold the sentence. So Jones dies.

This is not a far-fetched picture. Something not unlike it has actually happened. Nicola Sacco was convicted at Dedham in 1921 of a pay-roll murder on precisely the kind of eye-witness testimony detailed above, plus the testimony of gunexperts, since exploded. And Charles Brandon was electrocuted in Trenton, N. J., in the same year on the strength of a fingerprint alleged to have been found on an automobile door. When affidavits which Brandon's attorney declares would have established his innocence were carried to Governor Edward I. Edwards, that eminent statesman consented to read only one, ignored the others, and refused to interfere with Brandon's execution.

## III

Wehde made his discovery while in the Leavenworth Federal Penitentiary. He was sent there in 1921 for attempting to transport arms to East Indian revolutionists before the United States entered the World War, and was assigned to the finger-print laboratory. There he saw a visiting police officer attempt to "doctor" a photograph of a finger-impression later offered as evidence in a trial for train-robbery in which a large reward figured. This impelled Wehde to experiment, and after much effort he found a way to forge or transfer finger-marks.

Three hundred experiments convinced him and his fellow-workers in the laboratory of the absolute precision of his method. The head of the prison department of identification was informed of Wehde's discovery, and a chart containing forged and genuine finger-prints lay on his desk for two weeks. One day a letter came from William J. Burns, then head of the Department of Justice bureau of investigation at Washington. Burns inquired whether the forgery of finger-prints was regarded as possible at Leavenworth. Harrison George, a political prisoner and secretary to the chief prison expert, came to Wehde with this letter and asked what he should write in answer. "Tell him we can do it to defy detection," said Wehde. . . . "But the agent wants me to write a negative answer," George explained. So Wehde and George formulated a letter in which Burns was assured that the forging of finger-prints was beyond possibility.

After Wehde was liberated by commutation of his sentence in May, 1922, he gave out his findings through an interview in the labor press. It was disturbing to the

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finger-print experts. One of them defended the doctrine of infallibility in an article in the Finger-Print Magazine, organ of the leading school in that field, declaring that the proper way to examine such claims as Wehde's would be to submit them to a test by the nation's principal experts. "Such a test would be of scientific value," he wrote, "and I am sure the finger-print experts would welcome it." Accordingly, Wehde sought the privilege of the floor at the 1923 convention of the Illinois State Association for Identification. Al Dunlap, president of the association, asked for an advance demonstration, and Wehde gave it in the presence of several of Dunlap's colleagues. But later Dunlap wrote to Wehde accusing him of fraud and denying him the convention floor. At the convention two of the experts who had witnessed the private demonstration were permitted to "blast Wehde's claims to smithereens" when he was not present to defend himself.

Wehde's discovery was an independent one. But there are on record reports of two previous efforts along the same line. In 1913, Theodore Kytka, a handwriting expert in San Francisco, announced that he had devised a way to transfer fingerimpressions from one object to another. And in 1920 Milton Carlson, of Los Angeles, made a like claim. Neither described his process, however, and their claims received little publicity. Wehde did not hear of either until 1923. Commenting on Carlson's claim, John Henry Wigmore, the nation's ranking authority on evidence, says: "But as the method itself has been kept secret by the inventor, its practical availability must be doubted." There is no secret about Wehde's method. He explains it thus:

First, we obtain possession of a genuine fingerprint, which is easy, as no smooth-surfaced article can be handled without leaving digital marks. These marks are then developed and brought into bold relief by dusting powder on them, powder contrasting in color to the object on which the print adheres. We photograph this imprint, making the negative the exact size of the original. The ridges of the imprint will appear in opaque aspect on the glass plate. An etching is made from this negative, preferably on copper. This etching is a positive, and serves as a matrix or die, having the ridge-lines etched into it sharply. Then a piece of paper—any fairly heavy correspondence paper will do—is moistened slightly and forced into the ridges by rubbing its back firmly with any hard smooth instrument. When the paper is lifted off it will be found that the portion of it which bears the finger-impression is now an exact replica of the skindesign on the finger involved. Moistening this paper-transfer by touching it to any perspiring part of the human body, or slightly greasing it with any fatty or oily substance, and then pressing it against any surface capable of holding a direct finger-print, we transplant an exact copy of the original finger-impression, including every detail and sweat-pore.

Wehde uses a photo-engraver's knowledge to make the kind of matrix which is essential. But the discoverer points out that any commercial engraving plant would unhesitatingly execute an order for an etching in zinc or copper of any fingerprint—which might be wanted, innocently enough, for printing in a book or magazine.

### $\mathbf{IV}$

Despite the movies and the moral fiction in the Saturday Evening Post and Commissioner Enright's Alger stories about the New York cops in Flynn's Weekly, every person of normal intelligence knows that the police of our great cities are subject to lamentable environmental influences and that as a class they are perhaps no better than they ought to be. Knowledge of how to forge finger-prints would present an almost irresistible temptation to many of them. If, despite this, you are naïve enough to think that the police and prosecuting authorities remain zealous and impartial guardians of justice, read the report of John B. Densmore, agent for the Department of Labor, on the Mooney and Billings case in San Francisco. This report is contained in House Document No. 157, and it shows how local officials engineered a cold-blooded frame-up which put two men in prison for life for murders with which they had nothing to do.

Any newspaper man of experience knows that the overmastering desire of the police in all our big cities is to convict, and that almost always their assumption is that every prisoner is guilty. Consider the large number of false arrests in every American city each year. Thousands of innocent persons are picked up on suspicion, fingerprinted, photographed, and then turned loose when no offense can be fastened upon them. In New York City in 1922, for instance, the total number of arrests made and summonses served was 303,451, but 70,782 of the accused persons were discharged or acquitted.

For years it has been the practice of the police all over the United States to register the finger-prints of every person arrested, and to retain the prints even when the accused is exonerated—unless, of course, he can bring enough pressure to bear, through the courts or otherwise, to compel their return. There is no guarantee that the police anywhere will destroy the fingerimpressions of persons acquitted or discharged after false arrest.

There has been propaganda in the United States in recent times to bring about the registration of the finger-prints of every man, woman and child in the land. The New York State Chamber of Commerce advocates the scheme, offering a number of reasons, among them, the ready identification of lost and slain persons and suicides, the prevention of voting frauds, the protection of bank deposits, the possibility of keeping a check on persons who carry weapons, and the ease with which the plan would prevent "the evasion [sic] of clever and dangerous aliens sent here for the purpose of spreading discontent among the unassimilated elements of our population." The notorious Archibald E. Stevenson, counsel for the Lusk Committee, also supports the idea. "Eighteen thousand finger-print experts will be needed when universal finger-printing is adopted by our government," says the principal seminary for such experts.

Secretary of Labor James J. Davis, a former labor leader, and Representative Albert Johnson, of Washington State, have ardently sought to have Congress pass legislation providing for the annual registration of all the 8,000,000 aliens in the country. Deputy Police Commissioner Joseph Faurot, of New York City, also wants this done. "Think of the help it would have been in suppressing the alien, had such a bureau been in existence prior to and during the war," said Faurot in a recent radio speech. But when Johnson was trying to push his alien finger-printing bill through Congress in 1922, many protests were voiced against it in labor circles, on the ground that such registration savored of espionage. Supporters of the bill answered that "the registrations can never be used for anything else except to aid the Labor Department in knowing the whereabouts of aliens in this country," and declared that "it would require an act of Congress to open up the alien registration files to the Department of Justice or any other government organization which would seek to use them for the prosecution of supposed criminals." But anyone familiar with the activities of the various spying and snouting bureaus, during and after the war, knows better. No act of Congress was required to give the Department of Justice access to mail addressed to American citizens while that mail was in the hands of the Post Office. As for the Department of Justice, it worked hand in hand with the police all over the country, and with the American Protective League, an organization of slackers turned into amateur spies. Thousands of private offices were visited secretly at night and letters and documents there were photographed without warrant. In the Teapot Dome scandal it was shown that Gaston B. Means, a man convicted of serious offenses, had ready access to the confidential files of the Department of Justice.

Such men are all eager advocates of finger-prints and insist loudly that they are infallible. The Wehde discovery shows how infallible they really are—and how tantalizingly they tempt the police to help justice by artful devices when actual evidence is scanty or lacking.

## SUBSCRIPTION SETS

## BY MILTON WALDMAN

THE sale of standard sets of books by subscription in America has been described as a complete history of crime; it is equally a history of painful and costly disillusion. The greed, the ignorance and the charlatanry that have attended it exhibit human nature at almost its lowest point. That the traffic is disappearing into the limbo of uncomfortable memories should be cause for public congratulation.

The term "subscription" as applied to the so-called limited set is, of course, usually misleading. A book published by subscription is properly one which has been subscribed for in advance of publication; the edition is limited to the number of subscribers, with perhaps a few extra copies. The term has wandered into strange pastures when it is applied to a book, or, as usual, a set of books published in indefinite quantities for which orders are taken subsequent to publication. It is necessary in a discussion of the sale of books by subscription to keep this distinction clearly in mind.

The origin of subscription publication in England is somewhat indefinite, but it appears to have taken on a recognized character by about 1725. It became customary for an author who could not expect a large book-store sale for his book, or who desired to send it forth typographically comely, to solicit the aid of his acquaintances for the purpose of obtaining from, or through, them the means of publication. Hence, before the manuscript became a book the limit of its first edition was practically fixed. Some of the most enduring literature in the language was published in this fashion, while a host of amusing and pathetic stories recount the efforts of authors to secure the needed patrons.

The custom of publishing books by subscription was early transplanted to the United States and its further divelopment in England was paralleled here-but with differences that grew ever more startling as it became caught in the stream of American enterprise. One of the earliest and by all odds the most elaborate subscription venture in the annals of the American book trade was Marshall's "Life of Washington."<sup>1</sup> Immediately following the death of the first President, the publishers of the time had begun to look around for a fit historian of his achievements. Several minor biographies had appeared, the most important one by Mason Locke Weems, of whom more anon. But an authoritative one was demanded, and popular opinion, in the Federalist Party particularly, soon focussed on John Marshall, whose association with Washington had been particularly close.

Marshall, whose duties as Chief Justice were not at this time very arduous, was impelled by various motives to undertake the task. Partly it was a labor of love, but the famous jurist was also sadly in need of money. His financial expectations were high—he hoped to realize \$100,000 from the work—but they proved pitiably exaggerated, as will be seen. The contract with Wayne, a Philadelphia publisher, entered into September 22, 1802, gave Marshall warning of the disappointments to come. It called for the issue of four or five vol-

<sup>&</sup>lt;sup>1</sup> I am indebted to former Senator A. J. Beveridge's admirable biography of Marshall for many of the following facts.