# FOOTWEAR EVIDENCE

The examination, identification, and comparison of footwear impressions

By JOHN REGINALD ABBOTT Criminalistics Consultant Santa Ana, California Edited by A. C. GERMANN Professor, Police Science Long Beach State College Long Beach, California

John R. Abbott is recognized as one of the world's top identification experts. Almost three decades of personal experience and research are represented in FOOTWEAR EVIDENCE. FOOTWEAR EVIDENCE

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J. R. A.

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FOOTWEAR EVIDENCE

#### Chapter I

### THE FOOTWEAR SPECIALIST IN COURT

There is an urgent current need for information dealing with footwear evidence. Such information is important to the police investigator, prosecuting attorney, and defense attorney, and is indispensable to those specialists, criminologists, and criminalists who are called upon to testify as expert witnesses in court.

No doubt, the reader is well acquainted with the literature dealing with the preservation of this kind of evidence. But such references do not enter into the field of identification; at best, they simply mention size, perimeter shape, manufacturer trade name and design-matters which can only be used to eliminate other groups of footwear, but not to establish identification. Some publications have stressed the importance of footwear identification in sensational criminal proceedings which have resulted in conviction. While there may not have been miscarriages of justice in these cases, due to the expert testimony offered, there may have been instances of inadequate evidence accepted by the court and influencing the jury. Such inadequate evidence would never go unchallenged if the defense attorney had knowledge of the factors which govern identifications of this nature. A skilled attor-

ney, with knowledge of footwear identification, could strongly debate the findings of a specialist not so knowledgeable, and thus justly discredit the testimony of the specialist in the minds of the jury.

A caution might well be mentioned here: no one should be allowed to testify concerning footwear identification who has not spent considerable time researching and comparing test impressions made from suspected footwear against those impressions found at the crime scene.

There can only be contempt for any specialist who does not bring out, for the benefit of the defense, any points of comparison which cannot be reconciled with the identification being attempted. The specialist may be able to assist the case for the accused and should always do so if relevant information is at his disposal.

At times, the investigator or specialist selects an imprint at the crime scene and presents it as a court exhibit. This imprint may result in a positive identification. But such imprint may be one (selected for clarity) from a series of impressions which collectively indicate that the subject did not stop at the crime scene. Such information should be made available to the jury, for it may raise the question as to whether the accused could have committed the offense charged.

The jury is responsible for a true and just verdict in the interest of justice. A specialist must be absolutely impartial, objective, and neutral, with a scientific detachment from any desire to convict the accused. His position in the court is simply to testify as to the facts on which he is a specialist and expert. By acting in this

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manner, the specialist acquires a wholesome reputation for honesty and integrity. By his testimony, the specialist may be the means of saving the life or liberty of an innocent person who is accused of crime. And by his testimony, the specialist may be the means of securing justice by convicting the guilty by positive identification. But only if he is knowledgeable and experienced and fully qualified.

#### PERSONAL QUALIFICATIONS

What qualifications must a specialist in footwear identification possess? There is no substitute for experience and research. College training, giving basic training and wide-scope education, is not sufficient. Information obtained from college courses in criminalistics is skimpy and outdated in the area of footwear identification. Mere graduation from college or police academy does not qualify any person to take the stand as an expert witness.

Many criminologists or criminalists of great repute and experience have spent most of their time with chemistry, fingerprints, ballistics, document examination, spectrography and other specialties, but very little time with footwear identification—and that little time with *preservation*, rather than with *identification*. No specialist can properly take the stand as an expert in footwear identification if he hasn't had the experience of comparing thousands of characteristics of test impressions (under supervision) against the characteristics of crime scene impressions.

No fingerprint expert can be considered as fully

qualified until he has had the experience of searching and classifying thousands of individual fingerprints. If an undergraduate in Medicine, studying pathology in his senior year, were to testify as to the cause of death in a homicide case, any defense attorney, even one fresh from law school, would object on the grounds that the witness was incompetent to testify as an expert. Yet, this medical school undergraduate is far more qualified to testify as an expert in a homicide case than the criminalist who might testify relative to footwear identification, with but no more than ten hours of study and experience in footwear behind him. The example of the pathologist is hypothetical and farfetched, but the example of the non-qualified criminalist testifying in footwear identification is too real, and deserves serious attention by police, prosecutor, defense, and judge.

When a criminalist is credited with ten years of experience, and is presented as an expert to testify in the footwear area, we should find out what portion of this experience, in terms of time and research, was spent in the footwear identification area—and how many cases he has handled relating to footwear evidence.

Unqualified experts pose a problem. Part of the problem lies with police agencies who expect one criminalist to be an expert in many fields; part lies with the prosecutor who knowingly presents an unqualified expert; and part lies with the defense counsel who is not alert enough to present an objection. But the greatest part of problem is the specialist himself, who fails to reduce his experience and research to writing.

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It is hoped that those specialists who deal in footwear identification will take time to jot down their techniques and findings so that the information can be made available to other people in their own agency, to the criminalist in other agencies, and to the academic laboratories. There can be no great advances in footwear identification if those who wish to study the area have no access to the experience and the experiments of those who preceded them.

It is amazing how many identifiable impressions are discarded by investigators and specialists as unsuitable as evidence, and it is quite obvious that the potentiality of footwear identification is not being fully exploited, either by the working agency or by the collegiate laboratory.

#### **CONFERENCES WITH THE PROSECUTOR**

Before testifying in court, the specialist should arrange conferences with the prosecuting attorney. This should not be done a few minutes before a scheduled court appearance, but no later than the day before, and preferably several days, before the trial.

This conference is essential. The specialist should review the entire examination, comparison, and identification process with the prosecutor, and in the same fashion as will be utilized in court. In this manner the prosecutor will understand the testimony, and can prepare, ahead of time, to emphasize those portions which have the greatest bearing on the case at hand. Thus, the prosecutor does not coach his expert, but the expert coaches the prosecutor.

Because most prosecuting attorneys have had little experience in qualifying the footwear specialist, it is most necessary to provide him with a complete résumé of experience in that area. In turn, the prosecutor should adhere to the résumé as closely as is possible.

Neither the prosecuting officer nor the defense counsel should waive the qualification of the specialist each time he takes the stand, even though the specialist might have been qualified at the preliminary hearing, and even though the specialist may be well known due to his work in past cases, and even though both prosecution and defense are willing to stipulate to his qualification.

It is a good practice, once testimony has been completed, and no further need for the specialist is apparent, to request permission to be excused. The jury and defense counsel will note that the specialist is not personally interested in the outcome of the case, and the specialist will gain time in which to record the techniques of the case at hand.

#### FOOTWEAR EVIDENCE

Footwear identification has advanced, in recent years, from a mere "aid to investigation," to an accepted laboratory technique on a level with ballistics and fingerprint examinations. Not long ago, footwear evidence was acceptable only as *supporting or corroborative*—but not, of itself, sufficient as proof. However, in the past two decades, court rulings have increasingly accepted footwear evidence as *positive proof* of presence, even in the most serious of offenses.

#### The Footwear Specialist in Court

Unlike the ridge and furrow formation of a fingerprint, the tread surfaces of footwear are under constant change. After the crime scene impression has been made, very little added wear is required to make positive identification impossible. Therefore, if the suspect footwear is to be properly identified, there must be only a short time lapse between the commission of the offense and the examination of the suspected footwear. The exception lies in those cases where the offender changes shoes after the commission of a crime. Some offenders have been known to keep a pair of sneakers or running shoes to facilitate their quiet entrances and in order to gain from the element of surprise.

Just as some offenders utilize gloves to prevent fingerprints, other offenders utilize footwear which they keep in cupboards, closets, and garages. They do not realize that once found and identified with crime scene impressions, the footwear can be then identified with the subject's feet.

In footwear evidence cases, the investigator who apprehends the suspect should remove the shoes from the feet of the suspect, or be present when the jailor accepts the footwear from his prisoner. In this manner, those shoes presented as evidence will, in fact, be those shoes removed from the prisoner charged.

One case was dismissed when it was learned that the jailor who took possession of footwear left them unattended in an office during his lunch hour. The continuity of possession had been fatally contaminated.

Footwear taken as evidence should be tagged, with notations as to time, date, location, offender, and investi-

gators involved, and the tag should be securely attached to the eyelet of the footwear—never scribbled on any portion of the footwear, inside or outside. Additional tags should be attached as the footwear changes hands from investigator to jailor, jailor to laboratory, and laboratory to specialist.

#### **Partial Impressions**

The value of partial impressions left by footwear is little understood. Often, *partial* impressions left by leather soles and heels are thrown aside as unsuitable for identification—when, in fact, the impressions are often more identifiable than *whole* impressions left by rubber and composition footwear.

The majority of impressions which find their way into courtrooms seem to be composition or rubber footwear impressions, and are more fitted for questions of elimination rather than questions of identification.

In all cases, once the elimination stage has been exhausted, the identification process begins. Investigators and specialists should realize that 70 per cent of the partial impressions left by leather soled and heeled footwear are not only identifiable, but possess, in most cases, ten or more times the identification points of a set of fingerprints left at the scene of a crime!

Possession of a partial impression is only valuable, however, if the suspect is quickly apprehended. The true identification markings found on the tread surface of footwear are so minute that the additional wear of one day's use may preclude positive identification.

Even composition and rubber surfaces are somewhat changed by additional wear, but to a far lesser