## CRESTIGATION

Charles R. Swanson Neil C. Chamelin Leonard Territo



## Charles R. Swanson

University of Georgia, Athens

## Neil C. Chamelin

Florida Division of Motor Vehicles

## Leonard Territo

University of South Florida

#### The McGraw-Hill Companies, Inc.

New York St. Louis San Francisco Auckland Bogotá Caracas Lisbon London Madrid Mexico City Milan Montreal New Delhi San Juan Singapore Sydney Tokyo Toronto

#### McGraw-Hill



A Division of The McGraw Hill Companies

For Our Wives Kittsu, Vicki, and Chris

#### **Criminal Investigation**

Copyright © 1996, 1992, 1988 by The McGraw-Hill Companies, Inc. All rights reserved. Printed in the United States of America. Except as permitted under the United States Copyright Act of 1976, no part of this publication may be reproduced or distributed in any form or by any means, or stored in a data base or retrieval system, without the prior written permission of the publisher.

This book is printed on acid-free paper.

4567890 DOC DOC 90987

ISBN 0-07-063136-0

This book was set in ITC Century by The Clarinda Company.

The editors were Phillip A. Butcher, Bridget Isacsen, Margorie Byers, and Elaine Rosenberg; the production supervisor was Elizabeth J. Strange.

The cover was designed by Amy Becker.

R. R. Donnelley & Sons Company was printer and binder.

#### Library of Congress Cataloging-in-Publication Data

```
Swanson, Charles R., (date).
Criminal investigation/Charles R. Swanson, Neil C. Chamelin,
Leonard Territo. — 6th ed.
p. cm.
ISBN 0-07-063136-0
1. Criminal investigation.
States. I. Chamelin, Neil C.,
III. Title
HV8073.S84 1996
363.2'5—dc20
95-40954
```

## About the Authors

CHARLES R. "MIKE" SWANSON received his bachelor's and master's degrees in criminology from Florida Sate University and a doctorate in public administration from the University of Georgia, where he is a faculty member in the Carl Vinson Institute of Government. His primary responsibilities are to provide applied research, technical assistance, and training to Georgia units of state and local government. He has extensive experience in designing police promotional systems, conducting job task analyses, preparing written promotional tests, developing assessment center exercises, training assessors, and administering the assessment center process. The clients with whom he has worked include state police and state patrol agencies, sheriff's offices, and county and municipal police departments. Mike has testified in federal district court as an expert on promotional issues and in employee grievance hearings. He has designed and led training programs for over 10,000 police officers from throughout the country. A former patrol officer and detective with the Tampa Police Department, he also served as Senior Police Planner and Acting Deputy Director of the Florida Governor's Law Enforcement Council. Mike has coauthored five books and is the author or coauthor of a number of monographs, articles, and conference papers.

**NEIL C. CHAMELIN**, an attorney, is a Hearing Officer in the Florida Division of Motor Vehi-

cles. He previously served as Director of Criminal Justice Programs for Troy State University—European Region; Director of the Florida Police Standards and Training Commission; Division Director, Standards and Training Division, Florida Department of Law Enforcement; Administrator of the Police Science Division, Institute of Government at the University of Georgia; and Director of the Florida Institute for Law Enforcement. He has also served as a police officer in Sarasota, Florida. Chamelin is coauthor of Criminal Law for Police Officers, Introduction to Criminal Justice, and Police Personnel Selection Process.

LEONARD TERRITO is Professor of Criminology at the University of South Florida. Tampa. Previously he was Chief Deputy (Undersheriff) of the Leon County, Florida, Sheriff's Office, and served for nine years in the patrol. traffic, detective, and personnel and training divisions of the Tampa Police Department. He is former Chairperson of the Department of Police Administration at St. Petersburg Junior College, where he also directed specialized continuing education programs for police officers through the Florida Institute for Law Enforcement. In addition to numerous articles and technical reports, he has authored or coauthored eight books, the most recent of which are *Police* Administration: Structures, Processes, and Behavior, and Crime and Justice in America.

For reasons that we can all articulate, crime is a terrible burden on society. The men and women who will, or presently, investigate crime play a crucial role in combating it. This book is intended as a tool with which to educate those trying to make life safer for all of us. There is much that is new in the sixth edition. There is now a separate chapter on crimes against children, and the computer chapter has been rewritten almost completely to reflect what is going on in that quickly changing area. There are also entirely new sections on many different topics such as stalking, forensic lights, home invasion robberies, electrostatic lifters, the use of plant DNA in criminal investigations, truck hijackings, questioned documents, the theft of valuable plants from public lands, car jacking, and spousal abuse. Across all chapters, the content and references have been updated, and there are many new photographs, illustrations, tables, figures, and case histories. In short, we have worked hard to give you the best possible tool.

Yet, despite these changes, the basic plan and character of the book remain intact. This book continues to differ from traditional investigation texts; it is important to understand these differences as they are again reflected throughout this edition. The distinctions made in the first edition between this and other investigative texts still apply.

First, investigation generally has been conceived of, and touted as, an art. This approach depreciates the precision required to conduct inquiries; it denies the existence of, and adher-

ence to, rigorous methods; and it associates investigation with unneeded mysticism. Investigation is in large part a science. The fact that criminals are not always apprehended does not make it less so. The rational scientific method will, of necessity, be supplemented by initiative and occasional fortuitous circumstances, but it is the application of the method rather than shrewd hunches that most frequently produce results. This book unfolds along the same logical continuum as an investigation.

A second major difference arises from our judgment that writing about techniques takes on more substance if one understands something of the nature of the event being investigated. Thus, we have discussed typologies—including offenses, offenders, and victims. The treatment of these has not been equal in the crime-specific chapters because of the literature available. Collateral approaches have been the extensive use of illustrations, primary citations, and the judicious use of case studies.

Third, because crime prevention technology has been a significant milestone for both the police and the public, we have inserted short sections on prevention in the crime-specific chapters. The complexity of crime prevention dictates it as a specialization within police departments. Yet, at the scene of a crime, the investigator may be in a unique position to make a few helpful, if only rudimentary, suggestions to a victim on how to avoid further loss.

Finally, most investigative books in the past have blurred the distinction between the roles of the uniformed officer and the detective. While everyone may not agree with our dichotomizing, it is essential that the uniformed officer's role be properly recognized for the contribution it makes to the ultimate success of an investigation.

Criminal investigation is always in the process of evolving due to scientific, legal, and social developments, as well as changes in the behavior of criminals. While many investigative techniques are fundamental and remain basically the same over time, there are also significant charges that occur on a continuing basis. We hope that this edition captures both the ongoing and the changing dimensions of criminal investigation.

#### ACKNOWLEDGMENTS

Without the kindness of many people from throughout the country-literally from Alaska to Maine—this book could not have been written. They have contributed case histories; reviewed portions of the manuscript within their area of expertise; written a few sections; contributed photographs, forms, and other illustrations; and otherwise gone out of their way to be helpful. Our continuing concern in writing these acknowledgments is that, inadvertently, we may have omitted someone. If this is so, let us know so that we may correct this oversight, and also please accept our apologies. Our acknowledgments include both those who have contributed to this edition and those who helped with earlier editions. Some of the people identified have retired or taken on new responsibilities since assisting us. Unless otherwise requested, we show their organizational affiliation and status at the time of their original contributions. We feel that the agencies then employing them are also deserving of some continuing recognition.

Photographs in this book are credited as requested by the individual or organization submitting them. In this regard we note that photographs and other material were provided by William Cooper, Kern County, California, Sheriff's Department; Ronald Battelle and Mark Gart-

land, St. Louis Country Police Department; Juliann Willey, Delaware State Police Crime Laboratory; Jack Dietz, Santa Fe Police Department; Pete Riley. Forensic Document Laboratory, Immigration and Naturalization Service; Kathy Saviers, Lightning Powder Company, Salem, Oregon; Bill Darby, Tennessee Bureau of Investigation; George Reis, Newport Beach, California, Police Department: Barry Carver. Texas Rangers, Austin; Joe Bubonic, Illinois State Police; Gerald Baril and R. Mailhot, Lewiston, Maine, Police Department; Cris Pardo and Derry Upshaw; Westminster, Colorado, Police Department; Robert Hicks, Oklahoma Bureau of Investigation; David Rosegrant, Arkansas State Police; Marilyn Lee, Frank Jensen, and Jill Marks, Tampa Police Department; Turner Pippin, Alaska Crime Laboratory; Donald Kane, Paul Tully, James Granelle, Ken Duffy, John Auletta, and Cheroxie Marks, Nassau County. New York, Police Department; Charlie Norton, Don Walsh, and Al Tamala, Maracopa County. Arizona, Sheriff's Office; Greg Stryker, National Insurance Crime Bureau; Bob Smith, ATF; Law Dow, ODV Equipment, South Paris, Maine; Matt Pellagrino, FBI; Rita Hall, Nursing Program Specialist, Pinellas County Public Health Unit, St. Petersburg, Florida; William Celester and Jon Shane, Newark Police Department; Michael Snowden, Cincinnati Police Department; Jack Ellis, Sarasota County, Florida, Sheriff's Office; Dr. Timothy Helentjaris, Department of Plant Sciences, University of Arizona; A. C. Stewart. Jr., Greensboro, North Carolina, Police Department; John Eck, Police Executive Research Forum; Thomas Deakin, retired editor, FBI Law Enforcement Bulletin; Dave MacGillis, Florida Marine Patrol; Dick Waldbauer, National Park Service; Superior Court Judge Sherry Hutt, Phoenix, Arizona; Woody Jones, Federal Law Enforcement Training Center, Glynco, Georgia; Martin McAllester, Archeological Research Investigation, Rolla, Missouri; Jim Kundell, University of Georgia; Charles Dreveskracht, Northeast State University, Oklahoma; Bruce Mirkin and Phillip Andrew, Environmental Protection Agency; James Dunn, John Reynolds, Dr.

William Mooney, Frank Sass, Charles Steinmetz, Roger F. Depue, and Robert R. Hazelwood, FBI; Gill Kerlikowske, St. Petersburg Police Department; Wayne Hopkins, United States Chamber of Commerce; Bruce Boart, American Insurance Institute; retired Sgt. Bill Bacon of the Los Angeles County Sheriff's Office; Charles Higgenbotham, editor, The Police Chief; Robert J. Roberton, Division of Drug Programs, State of California; Dr. William Rodriguez, Forensic Anthropologist and Director of Laboratories. Caddo Parish Coroner's Office, Shreveport, Louisiana; William M. Bass; former Sheriff Ken Katsaris, Leon County, Florida: Melodie Wilson-Hobbick and John Barracato, Aetna Casualty and Surety Company; Dick Arther, National Training Center of Lie Detection; R. Keppel, New Scotland Yard, London, England; Jim Besonen, Michigan State Police; John Steward, Austin, Texas, Police Department; Jim Arena. New Jersey State Police; Robert Edmons, Los Angeles County Sheriff's Office; W. W. Pope. Atlanta Police Department; Ruben Ortega, Tim Black, and Ken Johnson, Phoenix, Arizona, Police Department; George O'Neil, Pinkerton, New York; James Todd and David Easthon, Geauga County, Ohio, Sheriff's Department; Fred Taylor, Metro-Dade Police Department. Miami, Florida; Mike Cox, Texas Department of Public Safety; Rodney Snedeker, U.S. Forest Service; Gene Rutledge, California Highway Patrol; Dan Dowd, Wisconsin State Crime Laboratory: Ken Zercle and Roland Carignan, Connecticut State Police; Tom Streed, San Diego County Sheriff's Department; Douglas Knight, Jr., Questar Corporation; William Grube, Night Vision Equipment Company; Charlie Midkiff, ATF; Eddie McNelley, Boston Police Department; Elizabeth Watson and Don Kruger, Houston Police Department; Don Hiebert and Jim Whitehead, Idaho Bureau of Investigation; Amy Corey, Cellmart Diagnostics; Tom Osberg and Steve Delaney, EPA; R. A. Bergman, Royal Canadian Mounted Police; Dick Waldbauer and Peter Baril, National Park Service; Edmond Pierce, Warwick, Rhode Island, Police Department; Victor Kovacic, Cleveland Police Department; Dr.

Deanne Dabbs, Virginia Division of Forensic Science; Ray Rice, Jose Alentado, and Patsy Andrew, FLETC, Glynco; Kevin Curry, 3M Company; Deborah Hewitt, Iowa Division of Criminal Investigation; Greg Stryker, NATB; Roland Lascola, Baltimore County Police Department: Donald Ghostlaw, Aetna Casualty and Surety Company; Jerry Vazquez, Hillsborough County Crisis Center, Tampa, Florida: Dorothy Knox. Detroit Police Department; Bob Collins, Aviation Crime Prevention Institute: Andrew P. Johnson and John E. Granfield, Loudon County Sheriff's Department; Rick Buckner, Clark County, Washington, Sheriff's Office: Julia Cartwright. National Center for Missing and Exploited Children; Robert Farley, Cook County, Illinois, Sheriff's Department; Phil Dacey, Pittsburgh Police Department; Gary Barbour, Lakewood, Colorado, Police Department; Steve Reynolds, Tuscon Video Systems; Janice Winchester and Randy Desilet, Florida Department of Law Enforcement; Susan Phillip, Tampa, Florida; Tom Pertierra, Havis Shields Equipment Company; Bill Hartner, Metro-Dade Police Department; Dennis Keener, FBI National Academy; Raymond Davis, Santa Ana, California, Police Department; John Donaldson and Robert Lane. Oregon Department of Public Safety; Meredith Ross Malin, Fair Oaks Hospital, Delray Beach, Florida; Robert Dempsey and Dale Heidman, Florida Department of Law Enforcement; Tom Evans, Pinellas County, Florida, Sheriff's Office; Tom Carbone, Maine Department of Inland Fisheries and Wildlife; Barbara Carlsen, Wyoming Game and Fish Department; Barry Glover and Sandy Stevens, Clearwater, Florida, Police Department; Craig Carnevale, Gemprint, Ltd., Chicago, Illinois; Steve Munday, Texas and Southwestern Cattle Raisers Association, Fort Worth, Texas; Johnny Perkins, Nelson Horne, Mario Alberti, Robert Jordan, and Charles Otero, retired, Tampa Police Department; William Barker and Jay Cochran, FBI; Antonia Cutillas, Argentine Embassy, Washington, D.C.; Joe Terlizzese and Henry Marchman, Palm Beach, Florida, Police Department; Joseph McNamara and Lester Harris, Kansas City Police Department; Truett Ricks, formerly with the Kentucky State Police; Dick Mellard, retired, Wichita Police Department; and Frank Flanagan, Marsh Considine, and Art Paholke, formerly with the Chicago Police Department. Art and Marsh also made themselves available to answer questions and added immeasurably to the book with their patience and thoroughness. All uncredited photographs in the book appear by courtesy of the Chicago Police Department.

Gene Lazarus, Florida State Fire College, Ocala, and Steve Mraz, formerly with the Pinellas County, Florida, Fire Academy, reviewed and contributed to the arson chapter. Bob Quinn, Tom Costigan, Mike Rendina, Jim Wilder, and Richard Frank, presently or formerly with the Drug Enforcement Administration; Tom Matthews, Temple Terrace, Florida Police Department; and Mike Sciales, formerly with the Hillsborough County, Florida, Sheriff's Office, reviewed and contributed to the chapter on drug abuse. Richard Souviron, Chief Forensic Odontologist, Dade County Florida, Medical Examiners Office, was the principal author of the material dealing with bite marks and dental evidence. Dr. Wally Graves, Medical Examiner for Lee, Henry, and Glades Counties, Florida, provided information on dental evidence. John Valor, forensic artist and photographer, provided illustrations for the dental section. Dick Williams, FBI Crime Laboratory, read the new questioned documents section and made a number of suggestions to clarify and strengthen it. Don Hampton, Springfield, Missouri, Police Department, did the same for parts of the crime scene chapter. Our good friend and colleague Harold Vetter wrote the initial material on behavioral science in criminal investigation several editions ago, and it continues to form the basic framework on which future editions have rested. Bob Taylor, University of North Texas, who has yet to master the nuances of steelhead fishing, authored the chapter on computer crime. As has been true for all editions, we continue to benefit from the reviews and research materials provided by Jim Halligan, formerly

with the Florida Department of Law Enforcement, and more recently, a professor in Florida State University's School of Criminology. He is a superb teacher and a real friend. Tim Buckley, a devoted Irishman, rogue, and retired Chief of Detectives, is an insightful observer of the investigative process. His friendship and cogent observations have enriched our lives and this book. Tim remains afflicted with a deep melancholy that he was not at the Dublin GPO on Easter Day 1916. Knowing TB is a rare pleasure.

Mike Lloyd and Guy Andrichuk provided research assistance and helped kill some "citation gremlins." Maryellin Territo devoted long hours to researching sources for the most current information relating to all facets of criminal investigation. Manuscript typing and revisions were handled by Marianne Bell, Carol Rennick, and Sharon Osterman, who worked hard and were patient with our changes and deadlines. Thanks to all of you.

This sixth edition of the book benefited from the counsel of reviewers; thanks to Steven Brandl, University of Wisconsin, Milwaukee; Frank G. Cameron, Quinsigamond Community College; Larry J. Myers, Sam Houston State University; H. Dale Nute, Forensic & Security Consultants Corp. and Florida State University; and Jay A. Siegel, Michigan State University.

Finally, a few words about the hard-working people at McGraw-Hill who helped make this a better book. Once again, Elaine Rosenberg was the Editorial Supervisor. She is the engine that drove the production process, transforming the manuscript into a book. It is a real plus to have an editorial supervisor you both respect and like. Many thanks, Elaine, you are saintly! Karen Osborne was the copy editor, the person who strengthened the clarity of the writing and corrected our grammatical misadventures. Phil Butcher, our editor, kept an eye on the project and encouraged us along the way.

Charles R. "Mike" Swanson Neil C. Chamelin Leonard Territo

## Contents in Brief

Preface xi	<b>13</b> Crimes against Children <b>400</b>
1	14
The Evolution of Criminal	Robbery 437
Investigation and Criminalistics 1	15
2	Burglary Investigation 467
Crime and Its Investigation 27	16
3	Larceny Offenses 503
The Crime Scene and Its Associated	17
Procedures <b>39</b>	Vehicle Thefts and Related
4	Offenses 551
Physical Evidence 78	18
5	Computer Crime <b>604</b>
Interviews 148	19
6	Agricultural, Wildlife, and Environmenta
Field Notes and Reporting 169	Crimes 621
7	20
Follow-Up Investigation 185	Arson Investigation <b>660</b>
8	21
Interrogation 223	Recognition, Control, and
9	Investigation of Drug Abuse 692
The Crime Laboratory and the	<b>22</b>
Criminal Investigation Process 253	The Decision to Initiate the Criminal
10	Process <b>752</b>
Behavioral Analysis in Criminal	23
Investigation 280	The Rules of Evidence 762
11	24
Injury and Death Investigation 306	The Investigator as Witness 776
Sex-Related Offenses 368	Index 787

## Contents

Preface xi

The Evolution of Criminal
Investigation and Criminalistics 1
Introduction 1
The Evolution of Criminal Investigation 1
The Impact of the Agricultural and Industrial
Revolutions 1
The Fieldings: Crime Information and the Bow
Street Runners 1
The Metropolitan Police Act of 1829 2
American Initiatives 3
Historical Milestones of Criminalistics 12
A Parting View 23
Questions 24
Notes 24

2 Crime and Its Investigation 27
The Impact of Crime 27
Crime and Its Investigation 27
Organization of the Investigative Function 30
Questions 37
Notes 38

3 The Crime Scene and Its
Associated Procedures 39
Introduction 39
Organization of the Crime Scene Investigation 39
Typical Crime Scene Problems 40
Rules for the Crime Scene Investigator 42
Types of Evidence and Their Usefulness 55
The Crime Scene Search 55
The Collection and Care of Evidence 60
Submission of Evidence to the Laboratory 62
Sketching the Crime Scene 63
Photographing the Crime Scene 69
Questions 74
Notes 75

4 Physical Evidence 78 Class versus Individual Characteristics 78 Soil 79 Paint 85 Glass 87 Fibers, Cloth Fragments, and Impressions 90 String, Cord, and Rope 92 Fingerprints 95 Dental Evidence 107 Hair 117 Blood 120 Human Excretions and Secretions 126 Lipstick and Lip Print Evidence 127 Firearms 128 Tool Marks 133 **Questioned Documents** 135 Questions 143 Notes 143

Interviews 148
Introduction 148
Witnesses: Motivations and Perceptions 149
Reliability of Eyewitness Identification 150
Hypnosis as an Investigative Tool 152
Types of Witnesses 155
Qualifications of the Interviewer 157
Time, Place, and Setting of the Interview 157
Interviewing: Processes and Techniques 160
Documenting the Interview 164
Questions 166
Notes 166

6 Field Notes and Reporting 169
The Importance and Use of Reports 171
Questions 184
Notes 184

7 Follow-Up Investigation 185
The Decision to Initiate a Follow-Up
Investigation 185
Crime Analysis 190
Internal Information Sources 195
The National Crime Information Center 196
Neighborhood Canvass 197
Informants 198
Surveillance 200
Mechanical Lie Detection 212
Relationships with Victims and Witnesses 216
Guidelines for Conducting Lineups 216
Questions 220
Notes 220

#### 8 Interrogation 223

Introduction 223 Objectives of Interrogation 223 Interviews and Interrogations: Similarities and Differences 224 Preinterrogation Legal Requirements 224 In-Custody Interrogation Defined 230 Why People Confess 234 The Interrogator 235 Planning for the Interrogation 236 Setting: The Interrogation Room 237 Beginning the Interrogation: Controlling and Evaluating the Suspect 239 Composing and Asking Questions 240 Interrogation Techniques and Approaches 240 Recognizing and Coping with Deception 241 The Importance of Listening 245 Documenting the Interrogation 245 Admissibility of Confessions and Admissions 249 Questions 250 Notes 251

**9** The Crime Laboratory and the Criminal Investigation Process **253** 

The Purpose of a Crime Laboratory 253
Forensic Science and Criminalistics Defined 253
Crime Laboratories: Programs and Personnel
Distribution 254

Measures of Effectiveness of Crime
Laboratories 255
New Technologies 260
Handling Evidence in the Laboratory 270
ATF Forensic Science Laboratories 273
The FBI Crime Laboratory 274
Questions 277
Notes 277

10 Behavioral Analysis in Criminal Investigation 280
Introduction 280
An Assessment of Psychological Profiling 280
The Serial Murderer 284
The National Center for the Analysis of Violent Crime 285
Satanic Beliefs and Criminal Activity 287
Forensic Linguistics 292
Psychics and Criminal Investigation 293
Social Network Analysis: An Aid in Conspiracy Investigations 294
Questions 303
Notes 303

**11** Injury and Death Investigation 306 Introduction 306 The Law 306 Motives for Murder 306 Responding to the Scene 309 Arrival at the Scene 309 Protecting the Crime Scene 310 Death Scene Checklist 310 The Medico-Legal Examination 310 The Autopsy 310 Identification of the Dead Person 311 Personality Reconstruction from Unidentified Remains 314 The Search for Buried Bodies 318 Police Responsibilities at the Morgue 325 Estimating Time of Death 325 Evidence from Wounds 331 Firearm Wound 331 Incised and Stab Wounds 337

Puncture Wounds 338
Lacerations 338
Defense Wounds 339
The Uncooperative Victim 339
Suicide 341
Vehicle Homicides 353
Fire Deaths 355
Family/Domestic Violence and Stalking 361
Questions 365
Notes 365

12 Sex-Related Offenses 368
Classification of Sex Offenses 368
Typology of Rape 369
Sex-Related Investigations 375
Why Women Do Not Report Rape to the Police 380
False Rape Allegations 380
The Victim and Physical Evidence 382
Errors Most Commonly Made in Collecting Evidence 385
Records of Injuries 386
Autoerotic Deaths 389
Questions 398
Notes 398

13 Crimes against Children 400
Assaults against Children 400
Munchausen's Syndrome by Proxy 405
Child Molestation 410
Incest 424
Sudden Infant Death Syndrome (SIDS) 429
Use of Age Progression Technology to Search for Missing Children 432
Questions 433
Notes 434

14 Robbery 437
Importance of the Problem 437
Elements of the Crime 437
Overview: The Offense, the Victim, and the
Offender 439
Typology of Robberies 443
Arrest Probabilities 449

Investigative Techniques 450
The Crime Scene Technician and the
Laboratory 458
The Investigator's Educative Responsibility 460
Questions 463
Notes 464

The Offense 467
Offenders 468
The Law 470
Approaching the Scene and Initial Actions 471
Investigative Considerations at the Scene 472
Safe Burglaries 477
The Role of Information 494
Tracing and Recovering Stolen Property 496
The Investigator's Crime Prevention Role 498
Questions 499
Notes 499

16 Larceny Offenses 503 Introduction 503 Investigative Procedure 503 Credit Card Fraud 504 Check Kiting 507 Receiving Stolen Property 510 Shoplifting 514 Confidence Games 517 White Collar Crime 522 Ponzi, or Pyramid, Schemes 523 Money Laundering 525 Fraudulent Use of Social Security Numbers 532 Offenses Covered under RICO 534 The Looting of Archaeological Sites 536 Questions 547 Notes 547

17 Vehicle Thefts and Related
Offenses 551
Extent of the Problem 551
Auto Theft 551
Theft of Heavy Equipment and Farm
Equipment 561
Investigative Tools and Techniques 565

Prevention Programs 587
Odometer Fraud 592
Marine Theft 593
Aircraft and Avionics Theft 598
Questions 602
Notes 602

#### 18 Computer Crime 604

Types of Computer Crime 604
The Hacker Profile 613
The Insider Profile 614
Investigating Computer Crime 615
Preventing Computer Crime 616
Questions 618
Notes 619

## **19** Agricultural, Wildlife, and Environmental Crimes **621**

Introduction 621

Agricultural Crime and Its City Connection 621
Some Dimensions of Agricultural, Wildlife, and
Environmental Crimes 622
Timber Theft 623
Grain Thefts and Frauds 625
Theft of Agrichemicals 626
Livestock and Tack Theft 628
Livestock Identification 633
Physical Evidence 636
Crime Prevention Measures 637
Wildlife Crimes 638
Environmental Crime 644
Questions 656
Notes 657

#### **20** Arson Investigation **660**

Introduction 660
Preliminary Investigation 660
Where and How Did the Fire Start? 661
Burn Indicators 664
Fire-Setting and Related Mechanisms 666
Arson for Profit 671
Other Motives for Arson 676
Detection and Recovery of Fire Accelerant
Residues 680

Scientific Methods in Arson Investigation 681
Interviews 684
The Arson Suspect 688
Photographing the Arson Scene 688
Questions 689
Notes 690

## 21 Recognition, Control, and Investigation of Drug Abuse 692

Introduction 692 **Comprehensive Drug Abuse Prevention and Control** Act of 1970 692 The 1988 Anti-Drug Bill 698 Posse Comitatus Act 699 The Opium Poppy (Papaver somniferum) 699 Synthetic Narcotics 702 Recognizing an Addict 703 Designer Drugs 704 Stimulants 706 Depressants (Sedatives) 716 Speedballing 718 Hallucinogens 718 Anabolic Steroids 724 Field Testing for Controlled Substances 726 Investigative Procedures 727 Drug Informants: Motives, Methods, and Management 727 The Investigator's Prevention Responsibility 731 Drug Abuse by Practitioners 732 Clandestine Drug Laboratories 733 Street Gangs and Drugs 738 Search Warrants and Probable Cause 741 Evidence Handling and Security Problems 742 Questions 744 Notes 744

Appendix: Drug Glossary 747

## **22** The Decision to Initiate the Criminal Process **752**

Introduction 752
Arrest Defined 752
Ingredients 752
Arrest Distinguished from Detention 753
Arrest Distinguished from Charging 754

Arrest Procedures 754
The Arrest Warrant 755
The Probable Cause Requirement 756
Evaluating the Case 760
Questions 760
Notes 761

23 The Rules of Evidence 762

Introduction 762
Evidentiary Concepts 762
Judicial Notice 767
Types of Evidence 768
The Hearsay Rule 770
Evidentiary Privileges 773
Witnesses 773
Questions 774
Notes 774

**24** The Investigator as Witness **776** 

Introduction 776
The Role of the Police Witness 776
Credibility 777
Characteristics of a Good Witness 777
Understanding the Jury 778
Appearance and Demeanor 778
Trial Process 778
Taking the Witness Stand 779
Answering Questions 781
Cross-Examination 783
Use of Notes on the Stand 784
Leaving the Witness Stand 785
Questions 785
Notes 785

Index 787

1

# The Evolution of Criminal Investigation and Criminalistics

#### NTRODUCTION

Writing about two separate but entwined fields—criminal investigation and criminalistics—is a difficult task. Many volumes have been written on each of these two fields, but the space that can be devoted to them here is limited. However, sufficient broad perspectives and supporting details are provided in this chapter to allow those intrigued by these subjects to independently pursue their interest with a basic working knowledge.

## THE EVOLUTION OF CRIMINAL INVESTIGATION

For present purposes, the evolution of criminal investigation begins in eighteenth century England, as massive changes were being unleashed. To fully appreciate the development of criminal investigation, it is important to understand the social, economic, political, and legal contexts in which it evolved. Thus, the balance of this section provides this content under the major headings of (1) the impact of the agricultural and industrial revolutions, (2) the Fieldings: Crime Information and the Bow Street Runners, (3) the Metropolitan Police Act of 1829, and (4) American initiatives.

## THE IMPACT OF THE AGRICULTURAL AND INDUSTRIAL REVOLUTIONS

During the eighteenth century two events—an agricultural revolution and an industrial revolution-began a process of change that profoundly affected how police services were delivered and investigations conducted. Improved agricultural methods, such as the introduction in 1730 of Charles Townshend's crop rotation system and Jethro Tull's four-bladed plow, gave England increased agricultural productivity in the first half of the eighteenth century. Improvements in agriculture were essential preconditions to the Industrial Revolution, in the second half of the eighteenth century, because they freed people from farm work for city jobs. As the population of England's cities grew. slums also grew, crime increased, and disorders became more frequent. Consequently, public demands for government to control crime grew louder.

## THE FIELDINGS: CRIME INFORMATION AND THE BOW STREET RUNNERS

In 1748, Henry Fielding became chief magistrate of Bow Street and set out to improve the administration of justice. In 1750, he established a

small group of volunteer, nonuniformed homeowners to "take thieves." Known as the "Bow Street Runners." these Londoners hurried to the scenes of reported crimes and began investigations, thus becoming the first modern detective force. By 1752, Fielding began publishing The Covent Garden Journal as a means of circulating the descriptions of wanted persons. Upon his death in 1754, Henry Fielding was succeeded by his blind half-brother, John Fielding. who carried on his brother's ideas for another 25 years.2 Under John Fielding, Bow Street became a clearinghouse for information on crime, and by 1785 at least four of the Bow Street Runners were no longer volunteers, but paid government detectives.3

### THE METROPOLITAN POLICE ACT OF 1829

In 1816, 1818, and again in 1822, England's Parliament rejected proposals for a centralized professional police force for London. Highly different political philosophies were at odds. One group argued that such a force was a direct threat to personal liberty. The other group—composed of reformers such as Jeremy Bentham and Patrick Colquhoun-argued that the absence, rather than the presence, of social control was the greater danger to personal liberty. Finally, in 1829, due in large measure to the efforts of Sir Robert Peel, Parliament created a metropolitan police force for London. Police headquarters became known as Scotland Yard, because the building formerly had housed Scottish royalty. Police constables were referred to as "bobbies," a play on Peel's first name, Robert. Peel selected Charles Rowan and Richard Mayne as police commissioners, responsible for the development of this new force, and important new principles governing police work were stated:

- 1. The police must be stable, efficient, and organized along military lines.
- The police must be under government control.

- 3. The absence of crime best proves the efficiency of police.
- 4. The distribution of crime news is essential.
- 5. The development of police strength both over time and by area is essential.
- No quality is more indispensable to a police officer than a perfect command of temper; a quiet, determined manner has more effect than violent action.
- 7. Good appearance commands respect.
- 8. The securing and training of the proper people is at the root of efficiency.
- Public security demands that every police officer be given a number.
- Police headquarters should be centrally located and easily accessible to the people.
- Police should be hired on a probationary basis.
- 12. Police records are necessary to the correct distribution of police strength.<sup>4</sup>

Because French citizens had experienced oppression under centralized police, the British public was suspicious of and at times even hostile to the new force. In response to the high standards set for the police force, there were 5,000 dismissals and 6,000 forced resignations from the force during the first three years of operations.5 This record was a clear indication to the public that police administrators were requiring officers to maintain high standards of conduct. Within a few years, the London Metropolitan Police had won a reputation for fairness, and it became the international model of professional policing. Despite the growing popularity of the uniformed bobbies, there was fear that the use of "police spies"—detectives in plain clothes—would reduce civil liberties.

In the years immediately following 1829, some Metropolitan Police constables were temporarily relieved from patrolling in uniform to investigate crimes on their beats.<sup>6</sup> However, as the distinction between the use of uniformed constables to prevent crime and the use of

plainclothes detectives for investigation and surveillance became clear, the public became uneasy. Illustratively, in 1833, a Sergeant Popay was dismissed following a Parliamentary investigation which revealed that he had infiltrated a radical group, acquired a leadership position, and argued for the use of violence. Until 1842, Metropolitan Police constables assigned to investigate crimes competed with the Bow Street Runners; in that year, a regular detective branch was opened at Scotland Yard, superseding the Bow Street forces.7 Under Commissioner Mayne, the detective force was limited to no more than 16 investigators, and its operations were restricted because of his distrust of "clandestine methods."8

Following a scandal in which three of four Chief Inspectors of detectives were convicted of taking bribes, <sup>9</sup> a separate, centralized Criminal Investigation Department (CID) was established in 1878 at Scotland Yard. It was headed by an attorney, Howard Vincent. <sup>10</sup> Uniformed constables who had shown an aptitude for investiga-

tion were recruited to become CID detectives.<sup>11</sup> Interestingly, at least since Vincent's time, the use of strong central control has been a recurrent theme in the reform of police organizations to correct for abuses. (See Figures 1–1 and 1–2.)

#### **A**MERICAN INITIATIVES

The success of Peel's reform in England did not go unnoticed in this country. Stephen Girard bequeathed \$33,190 to Philadelphia to develop a competent police force. In 1833, Philadelphia passed an ordinance creating America's first paid, daylight police force. Although the ordinance was repealed just three years later, the concept of a paid police force would reappear as American cities staggered under the burdens of tremendous population growth, poverty, and massive crime. In 1836, New York City rejected the notion of a police force organized along the lines advocated by Peel. The committee studying the idea concluded that:

### Figure 1–1 NEW SCOTLAND YARD

In 1890, the Metropolitan Police left their original quarters and were housed in New Scotland Yard, which is pictured here circa 1895. Subsequently, in 1967, the Metropolitan Police moved again to their present facilities, which are also referred to as New Scotland Yard.

(Courtesy of London Metropolitan Police)

