

## INDEX

**ACCOUNTANTS, FORENSIC**, see **FORENSIC SPECIALISTS**

**AFIS**, see **AUTOMATED FINGERPRINT IDENTIFICATION SYSTEMS (AFIS)**, see also **FINGERPRINTS**

**ANTHROPOLOGISTS**, see **FORENSIC SPECIALISTS**

**AUTOMATED FINGERPRINT IDENTIFICATION SYSTEMS (AFIS)**, 15-16, 19-23, see also **FINGERPRINTS**

### **AUTOPSY, FORENSIC**

- bite marks, 123
- bullet wounds, 124
- completing the autopsy, 123
- decomposition, 122-123
- generally, 120-121, 124
- livor mortis, 122
- rigor mortis, 121-122

**BERTILLON, ALPHONSE**, 1

**BITE MARKS**, 60, 123

### **BULLETS AND FIREARMS**

- bullet wounds, see **AUTOPSY, FORENSIC**
- bullets, types of, 67
- firearms, types of, 65-66
- cartridge case and bullet imaging, 76
- cartridge cases, 71-72
- close-up trajectory determination, 77
- database systems for tracking firearms, 72-73
- gunshot residue (GSR), 76-77
- IBIS – Integrated Ballistics Identification System, 73-75
- science of discharging firearms, 67-70

## Crime Scene Investigation

- shotgun shells, 72
- trajectory determination, 77

### ***CANADIAN CHARTER OF RIGHTS AND FREEDOMS***

- improperly or illegally obtained evidence
  - *Charter* violation, 155-159
  - improperly seized and stored evidence, 159-160
- remedies
  - exclusion of evidence under s. 24(2), 157-158
  - stay of proceedings, 158-159
- section 8
  - lawful warrantless searches, 141-143
  - search and seizure, 140-141
  - when s. 8 applies, 138-139

### **CHAIN OF CUSTODY, 5, 109**

### **CODIS – COMBINED DNA INDEX SYSTEM, 101, 107, see also DNA**

### **COMPUTER CRIME SCENES, 60-63**

### **CORONERS**

- called to crime scene, 110, 111
- forensic pathologists, 118-119

### **CRAZY GLUE, see FINGERPRINTS**

### **CRIME LABORATORIES**

- accreditations, 129
- external forensic consultants, 134
- federal, 127
- private, 128
- provincial, 128
- services offered
  - biology, 130
  - chemistry, 131
  - document examiners, 132-133
  - electronics, 133-134
  - firearms and tool marks, 132
  - toxicology, 131

## Index

### **CRIME SCENES**

- approach of investigator, 80
- authority to search for and collect evidence, 137-138, see also *CANADIAN CHARTER OF RIGHTS AND FREEDOMS* and **EVIDENCE**
- definition, 4
- evidence, see **EVIDENCE**
- management of scene, 81-84
  - first responders, 81, 83-84
  - forensic identification officers, 83
  - indoor scene, 83
  - media management, 82
  - outdoor scenes and perimeter, 82
  - search warrants, 81, 83
- processing the scene, authority, 85
- search warrants, 81, 83

### **CRIMINAL RECORDS, 16-18**

### **CYBER BULLYING, see COMPUTER CRIME SCENES**

### **DEATH**

- fingerprinting the deceased, 119
- forensic autopsy, 120-125
- pronouncing death
  - law enforcement personnel, 109-110
  - medical professionals, 111
- scene
  - forensic investigation of, 114-117
  - preservation of, 111-112
  - video surveillance, 113-114
  - who may be needed at, 112-113

### **DECOMPOSITON, see AUTOPSY, FORENSIC**

### **DESIGNATED OFFENCES, 101, Appendix**

### **DNA**

- collection of sample, 103-104
- Combined DNA Index System (CODIS), 100, 107
- designated offences, 101

## Crime Scene Investigation

- generally, 97-99, 100, 102-103
- Mini-STR, 105
- Mitochondrial DNA (mtDNA), 105-107
- National DNA Data Bank of Canada, 101-102
- Y-STR testing, 104-105

**EDGESCOPY**, 194

**ENGINEERS, FORENSIC**, see **FORENSIC SPECIALISTS**

**ENTOMOLOGISTS**, see **FORENSIC SPECIALISTS**

### **EVIDENCE**

- admissibility
  - exceptions to admissibility of relevant evidence, 170-174
  - general rule, 168
  - prejudicial effect outweighs probative value, 169-170
- collection at crime scene, 85-88, see also **SEARCH AND SEIZURE**
- cleaning crime scene, 89-92
- mug shots, 96
- packing physical evidence, 88-89
- photographing evidence at scene, 87-88, 92-95
- protective equipment, 87
- continuity of, see **CHAIN OF CUSTODY**
- demonstrative evidence or “demonstrative aids”, 180
- direct and circumstantial evidence, 174-176
- exclusion of evidence, see **CANADIAN CHARTER OF RIGHTS AND FREEDOMS**
- expert opinion evidence, see **EXPERT OPINION EVIDENCE**
- improperly or illegally obtained evidence, see **CANADIAN CHARTER OF RIGHTS AND FREEDOMS**
- legal authority to search for and collect evidence
  - generally, 137
  - reasonable expectation of privacy, 138-139
  - s. 8 of the *Charter*, 138
- oral testimony, 176-178
- real evidence, 179-180
- rules of evidence
  - “capable of proving or disproving...”, 167-168

## Index

- generally, 161-163
- what qualifies as evidence, 163-166

### **EXPERT OPINION EVIDENCE**

- admissibility
- exclusionary rule, absence of, 192-193
- necessity, 191-192
- properly qualified expert, 193
- relevancy, 190-191
- evaluating expert opinion evidence, 193-194
- expert witness
  - pre-trial examinations, 187
  - qualification as, 187-188
  - report writing, 188
  - required for trial, 188-190
  - generally, 181-183
  - giving expert evidence, 194-201
  - role of expert witness
    - difference between expert and regular witnesses, 183-185
    - power of expert witnesses, 185-186

### **FINGERPRINTS**

- children's fingerprints, 24-26
- deceased's fingerprints, 119
- definition, 9-11
- *Identification of Criminals Act*, 26-29
- latent fingerprints
  - best evidence rule, 43
  - composition, 31-33
  - Crazy Glue, 37-38
  - definition, 23-24
  - forensic light sources, 44-46
  - invisibility, 34
  - lifting the print, 41-43
  - powders and brushes, 34-36
  - vacuum metal deposition (VMD), 38-40
- patterns, types of, 11-12
- taking of, 13-14
- Automated Fingerprint Identification Systems (AFIS), 15-16, 19-23

## Crime Scene Investigation

- criminal records, 16-18
- poroscopy, 19, 194

**FIREARMS**, see **BULLETS AND FIREARMS**

### **FOOTWEAR IMPRESSIONS**

- dust impressions, 55-57
- in snow, 58
- in soft earth, 50-53
- on hard surfaces, 53-54

**FORENSIC AUTOPSY**, see **AUTOPSY, FORENSIC**

**FORENSIC CRIME LABORATORIES**, see **CRIME LABORATORIES**

**FORENSIC PATHOLOGISTS**, see **FORENSIC SPECIALISTS**

### **FORENSIC SCIENCES, HISTORY OF**

- Bertillon, Alphonse, 1
- Foster, Edward, 2
- Galton, Sir Francis, 2
- Henry, Sir Edward, 2
- Locard, Dr. Edmond, 3
- Purkinje, Johannes, 1-2

### **FORENSIC SPECIALISTS**

- generally, 5-8
- pathologists, 118-119

**FOSTER, EDWARD**, 2

**FRAUD**, see **COMPUTER CRIME SCENES**

**GALTON, SIR FRANCIS**, 2

**GUNSHOT RESIDUE (GSR)**, 76-77

**HENRY, SIR EDWARD**, 2

*IDENTIFICATION OF CRIMINALS ACT*, 26-29

**IDENTITY THEFT**, see **COMPUTER CRIME SCENES**

Index

- INTEGRATED BALLISTICS IDENTIFICATION SYSTEM (IBIS)**, 73-75
- INTERNET ACTIVITY**, see **COMPUTER CRIME SCENES**
- INVESTIGATORS, FORENSIC**, see **FORENSIC SPECIALISTS** and **EXPERT OPINION EVIDENCE**
- JEFFREYS, DR. SIR ALEC**, 99-100
- LATENT FINGERPRINTS**, see **FINGERPRINTS**
- LIVOR MORTIS**, see **AUTOPSY, FORENSIC**
- LOCARD, DR. EDMOND**, 3-4
- MINI-STR**, 105
- MITOCHONDRIAL DNA (mtDNA)**, 105-107
- MUG SHOTS**, 96
- NURSES, FORENSIC**, see **FORENSIC SPECIALISTS**
- ODONTOLOGISTS**, see **FORENSIC SPECIALISTS**
- PATHOLOGISTS, FORENSIC**, see **FORENSIC SPECIALISTS**
- PERSONAL COMMUNICATION DEVICES**, see **COMPUTER CRIME SCENES**
- PHYSICAL EVIDENCE**
- bite marks, 60
  - footwear impressions
  - dust impressions, 55-57
  - in snow, 58
  - in soft earth, 50-53
  - on hard surfaces, 53-54
  - tire impressions, 58
  - tool marks, 59
- POROSCOPY**, 19, 194
- PSYCHIATRISTS AND PSYCHOLOGISTS, FORENSIC**, see **FORENSIC SPECIALISTS**

## Crime Scene Investigation

**PURKINJE, JOHANNES**, 1-2

**REASONABLE EXPECTATION OF PRIVACY**, 138-140

**RIGOR MORTIS**, see **AUTOPSY, FORENSIC**

**SCIENTISTS, FORENSIC**, see **FORENSIC SPECIALISTS**

### **SEARCH AND SEIZURE**

- collection of evidence at crime scene, see also *CANADIAN CHARTER OF RIGHTS AND FREEDOMS* and **EVIDENCE**
- best evidence rule, 151-152
- chain of continuity, ensuring, 152-154
- documenting the unprocessed scene, 149-151
- proper storage of evidence, 154
- lawful warrantless searches
- common law searches, 141-142
- consent searches, 142-143
- search warrants
- executing a warrant, 146-148
- generally, 144
- obtaining a warrant, 145-146

**SIGNALETIC SYSTEM**, see **BERTILLON, ALPHONSE**

**TECHNOLOGICAL CRIME ANALYSTS**, see **FORENSIC SPECIALISTS**

**TIRE IMPRESSIONS**, 58

**TOOL MARKS**, 59

**TOXICOLOGY**, see **CRIME LABORATORIES**

**VACUUM METAL DEPOSITION (VMD)**, 38-40

**WARRANTS, SEARCH**, see **SEARCH AND SEIZURE**

**Y-STR TESTING**, 104-105