Experiment 6

Identification and Matching of Fingerprints

Purpose

This experiment allows the student to identify and compare fingerprints.

Equipment and Supplies

1. Cards (prepared in Experiment 5) containing rolled fingerprints of known individuals to be used as standards for identification and comparison
2. Set of unknown fingerprints
3. Magnifying glass

Procedure

1. Obtain unknown prints and reference (comparison) prints in an envelope from your instructor.
2. Record the identification data (numbers and/or letters) of the known and unknown prints in the appropriate areas of the Report section.
3. Compare each unknown set of prints from the envelope to known comparison prints on the cards. All unknown prints should be identified or reported as "no reference found" (see Figures 6.1 through 6.3 and descriptions of features below).
4. Note in the Report section all matches of unknown and known prints. List at least 14 matching features in the Report section.
5. Return all prints to your instructor.

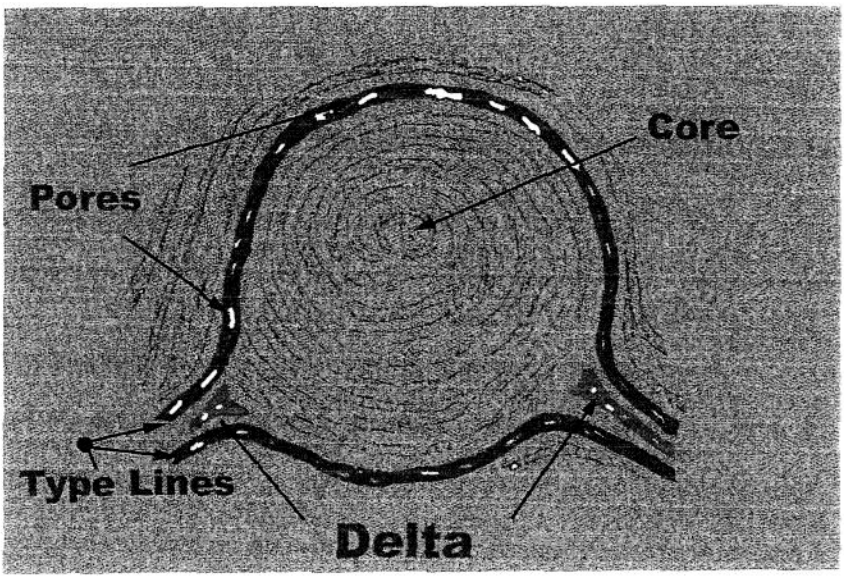

FIGURE 6.1
Examples of classification features.

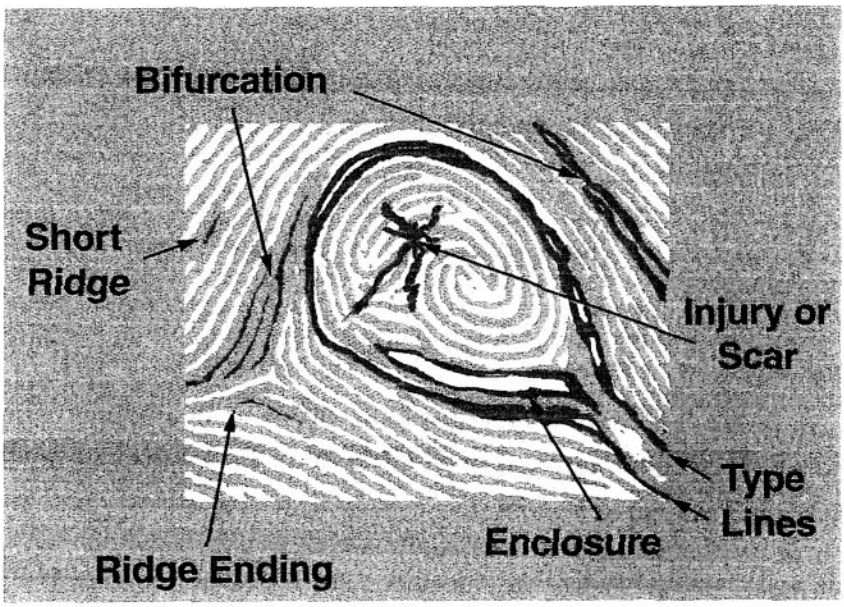

FIGURE 6.2
Examples of identifying features.

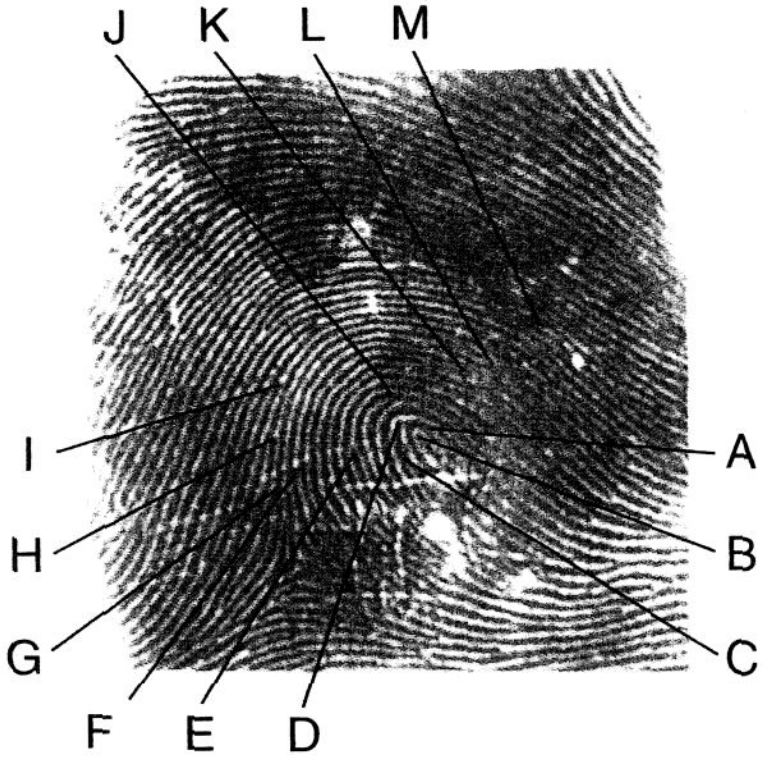

FIGURE 6.3
Fingerprint chart with identifying features, each designated by a letter.

Important Features and Descriptions

Bifurcation — *Forking off of two friction ridges (see Figure 5.5 on page 36).*

Core — Center of a loop, whorl, and some arch patterns.

Delta — Area of a ridge nearest the point of divergence of two type lines.

Friction Ridge Lines — Crests or high points of lines on the undersides of hands and feet. They are abundant and form unique patterns on the outer skin of fingers, palms, toes, and soles. *Their troughs or low points are known as furrows.*

Type Lines — Two ridges that run parallel to and surround the area of the fingerprint pattern.

Report

1. Record the identifications (numbers and/or letters) of the unknown fingerprints and next to it record the identifications (numbers and/or letters) of the reference (known) prints that match the unknown prints.

2. List at least 14 matching features of the unknown and known prints (see Figure 6.3):

(1) _____ (8) _____

(2) _____ (9) _____

(3) _____ (10) _____

(4) _____ (11) _____

(5) _____ (12) _____

(6) _____ (13) _____

(7) _____ (14) _____