

Opinions of Fingerprint Expert in Evidence Act

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Abstract: - Increasing use is being made of various types of scientific evidence in court. The general requirement for the admissibility of such evidence is relevance. Although expert evidence is considered to be opinion evidence, it is admissible if it can assist the court to decide a fact in issue; provided that it is also reliable. This term paper is studied the opinions of fingerprint expert in evidence act. In evidence Act, when the court has to form an opinion upon a point of foreign law, or of science, or art, or as to identity of hand writing or finger impressions, the opinion upon that point of persons specially skilled in such foreign law, science or art, or in question as to identity of handwriting or finger impressions are relevant facts. The reason as well as opinion given by a fingerprint expert as to the identity of a palm impression is admissible in evidence. The evidence given by a fingerprint expert need not necessarily be corroborate but the court must satisfy itself as to the value of the evidence of expert in the same way as it must satisfy of the value of other evidence. The chief advantages of fingerprinting are practical: it is cheaper and faster than anthropometry, and, crucially, the recording of data and the taking of inked finger impressions (required only minimal training).

I. INTRODUCTION

A variety of scientific techniques are currently used for forensic purposes and new techniques and methods are constantly being added. Forensic science includes such diverse fields as forensic medicine, toxicology, psychology, and anthropology as well as the work of specialized examiners of fingerprints, firearms, tool marks, and disputed documents. We touch things every day: a coffee cup, a car door, a computer keyboard. Fingerprints can be found on practically any solid surface, including the human body. Each time we do, it is likely that we leave behind our unique signature in our fingerprints. No two people have exactly the same fingerprints. Even identical twins, with identical DNA, have different fingerprints. This uniqueness allows fingerprints to be used in all sorts of ways, including for background checks, biometric security, mass disaster identification, and of course, in criminal situations. Fingerprint analysis has been used to identify suspects and solve crimes for more than 100 years, and it remains an extremely valuable tool for law enforcement. One of the most important uses for fingerprints is to help investigators link one crime scene to another involving the same person. Fingerprint identification also helps investigators to track a criminal's record, their previous arrests and convictions, to aid in sentencing, probation, parole and pardoning decisions.

II. DEFINITIONS OF THE TERMS OF EVIDENCE ACT

2.1 Court

Court includes all judges and Magistrates, and all persons, except arbitrators, legally authorized to take evidence.¹

2.2 Fact

Fact means and includes (1) anything, state of things, or relation of things capable of being perceived by the senses. (2) any mental condition of which any person is conscious.²

Illustration-

- (a) That there are certain objects arranged in certain order in a certain places is a fact.
- (b) That a man heard or saw something is a fact.
- (c) That a man said certain words is a fact.
- (d) That a man holds a certain opinion, has a certain intention, acts in good faith or fraudulently or uses a particular word in a particular sense or is or was at a specified time conscious of a particular sensations, is a fact.
- (e) That a man has a certain reputation is a fact. Thus, facts are either physical or psychological.

2.3 Relevant

One fact is said to be relevant to another when the one is connected with the other in any of the ways referred to in the provisions of this Act relating to the relevancy of facts.³

Sections 5 to 55 of the Evidence Act are provisions, of the relevancy of facts, a fact is relevant to another fact according to any of those provisions, that fact is said relevant.

2.4 Facts in issue

Any fact from which, either by itself or in connection with other facts, the existence or non-existence, nature or extent of any right, liability, or disability, asserted or denied in any suit or proceeding, necessarily follows.⁴

Explanation: - Whenever under the provision of the law for the time being in force relation to civil procedure any court records an issue of fact the fact to be asserted or denied in the answer to such issue is a fact in issues.

Illustration-

A is accused of the murder of B.

¹ Section (3), Evidence Act, 1872.

² Ibid

³ Section (3), Evidence Act, 1872.

⁴ Section (5), Ibid

At his trial the following facts may be in issue that A caused B's death;

that A intended to cause B's death;

that A has received grave and sudden provocation from B;

that A, at the time of doing the act which caused B's death,

was, by reason of unsoundness of mind, incapable of knowing, its nature.

2.5 Document

Document means any matter expressed or described upon any substance by mean of letters, figures or marks, or by more than one of those, means intended to be used or which may be used for the purpose of recording that matter. In this expression, electronic record and information are included.⁵

Illustrations-

(1) Any map, plan, graph or drawing;

(2) Any photograph;

(3) Any label, marking or other writing which identifies or describes anything of which it forms a part, or to which it is attached by any means whatsoever;

(4) Any disc, tape, sound-track or other device in which sound or other data (not being visual images) are embodied so as to be capable (with or without the aid of some other equipment) of being reproduced therefrom;

(5) Any film (including microfilm), negative, tape, disc or other device in which one or more visual images are embodied so as to be capable (with or without the aid of some other equipment) of being reproduced therefrom;

(6) Any paper or other material on which there are marks, impressions, figures, letters, symbols or perforations having a meaning for persons qualified to interpret them; and

(7) Any record generated, sent, received or stored by means of electronic, magnetic, optical or any other similar technologies in an information system to another; "Copy of a document" includes-

(1) In the case of a document falling within paragraph (4) of above illustration of the definition of 'document' a transcript of the sounds or other data embodied in it;

(2) In the case of a document falling within paragraph (5) of above illustration of the definition 'a reproduction or still reproduction of the images embodied in it, whether enlarged or not;

(3) In the case of a document falling within paragraph (4) and (5) of that definition, such a transcript together with such a still reproduction; and

(4) In the case of a document not within paragraph

⁵ Section (5), Evidence Act, 1872.

(5) Of that definition of which a visual image is embodied in a document falling within that clause, a reproduction of that image, whether enlarged or not, and any reference to a copy of the material part of a document must be construed accordingly;

2.6 Evidence

Evidence means and includes- all statements which the Court permits or requires to be made before it by witness in relation to matters of fact under inquiry; such statements are called oral evidence: All documents for the inspection of the Courts, such documents are called documentary evidence. The definition of evidence covers (a) Oral evidence (the evidence of witness), and (b) documentary evidence.⁶

2.6.1 Proved

A fact is said to be proved when, after considering the matters before it, the Court either believes it to exist, or considers its existence so probable that a prudent man ought, under the circumstances of the particular cases, to act upon the supposition that it exists.⁷

2.6.2 Disproved

A fact is said to be disproved when, after considering the matters before it, the Court either believes that it does not exist, or considers its non-existence so probable that a prudent man ought, under the circumstances of the particular case, to act upon the supposition that it does not exist.⁸

2.6.3 Not Proved

A fact is said not to be proved when it is neither proved nor disproved. The words "may presume" and "conclusive proof" are defined in section 4 of the Evidence Act.⁹

2.6.3.1 May presume

Whenever it is provided by this Act that the Court may presume a fact, it may either regard such fact as proved, unless and until it is disproved, or may call for proof of it.¹⁰

2.6.3.2 Shall presume

Whenever it is dissected by this Act that a Court shall presume a fact, its hall regard such fact as proved, unless and until it is disproved.¹¹

2.6.3.3 Conclusive proof

When one fact is declared by the Act to be conclusive proof of another, the Court shall, on proof of the

⁶ Section (5), Evidence Act, 1872.

⁷ Ibid.

⁸ Ibid

⁹ Ibid

¹⁰ Section (4), Evidence Act, 1872.

¹¹ Section (4), Evidence Act, 1872.

one fact, regard the other as proved, and shall not allow evidence to be given for the purpose of disproving it.¹²

2.7 Expert

A person who has a special skill or knowledge relating to a particular subject.¹³

2.8 Opinion

A view or judgment formed about something, not necessarily based on fact or knowledge.¹⁴

The definitions of the words and clauses contained in the Evidence Act can be found in section (3)¹⁵ of the Evidence Act. In this Act the above words and expressions are used in the above senses, unless a contrary intention appears from the context.

In Chapter 1, there is title in definitions of the terms of evidence act. They are court, fact, relevant, facts in issue, document, evidence such as proved, disproved and not proved such as may presume, shall presume and conclusive proof , expert and opinion.

III. FINGERPRINT ANALYSIS PROCESS

Finger Prints serve to reveal an individual True-Identity despite personal denial, assumed names, and changes in personal appearance resulting from age, disease or accidents. Thus the question of Identification figures a good deal in both Criminal and Civil cases. Identity of persons, living or dead, Known or Unknown, of things, or handwriting or finger Prints or Foot Prints play part in establishing the Guilt or Innocence of the accused or In proof or dis-proof of the case of the parties in civil matters. Because of its simplicity and economy the practice of utilizing Finger Prints as means of identification referred to as DACTYLOSCOPY - has become established and indispensable to the Modern Law Enforcement. DACTYLOSCOPY - is based on the principles:

1. There are no two Identical Finger Prints and
2. Finger Prints are not-changeable thus Individuality and Persistency.¹⁶

The term “friction ridge impression” will be used to refer to any impression made from human friction ridge skin (e.g., the skin on the palm side of fingers and hands and the soles of the feet). There are two different types of friction ridge impressions: those of known individuals intentionally recorded, and impressions from one or more unknown persons

on a piece of evidence from a crime scene or related location; the latter are generally referred to as latent prints.¹⁷

3.1 Principles of Fingerprint Analysis

Fingerprints are unique patterns, made by friction ridges (raised) and furrows (recessed), which appear on the pads of the fingers and thumbs. Prints from palms, toes and feet are also unique; however, these are used less often for identification, so this guide focuses on prints from the fingers and thumbs. The fingerprint pattern, such as the print left when an inked finger is pressed onto paper, is that of the friction ridges on that particular finger. Friction ridge patterns are grouped into three distinct types—loops, whorls, and arches—each with unique variations, depending on the shape and relationship of the ridges: [attachment 1].¹⁸

3.1.1 Loops

Loops prints that recurve back on themselves to form a loop shape. Divided into radial loops (pointing toward the radius bone, or thumb) and ulnar loops (pointing toward the ulna bone, or pinky), loops account for approximately 60 percent of pattern types.

3.1.2 Whorls

Whorls form circular or spiral patterns, like tiny whirlpools. There are four groups of whorls: plain (concentric circles), central pocket loop (a loop with a whorl at the end), double loop (two loops that create an S-like pattern) and accidental loop (irregular shaped). Whorls make up about 35 percent of pattern types.¹⁹

3.1.3 Arches

Arches create a wave-like pattern and include plain arches and tented arches. Tented arches rise to a sharper point than plain arches. Arches make up about five percent of all pattern types.²⁰

Analysts use the general pattern type (loop, whorl or arch) to make initial comparisons and include or exclude a known fingerprint from further analysis. To match a print, the analyst uses the minutiae, or ridge characteristics, to identify specific points on a suspect fingerprint with the same information in a known fingerprint.²¹

3.2 Collecting Patent Prints

Patent prints are collected using a fairly straightforward method: photography. These prints are photographed in high resolution with a forensic measurement scale in the image for reference. Investigators can improve the

¹² Ibid

¹³ <http://www.merriam-webster.com/expert>

¹⁴ <http://www.en.oxforddictionaries.com/opinion>

¹⁵ Section (3), Evidence Act, 1872.

¹⁶ C.K.Johari, Identification of Finger prints and Law, Published in Institute' Journal April – June 1995, P- 15.

¹⁷ <https://www.ncjrs.gov/pdffiles1/nij/grants/220692.pdf> (accessed July 19, 2012)

¹⁸ Ibid

¹⁹ <https://www.ncjrs.gov/pdffiles1/nij/grants/220692.pdf> (accessed July 19, 2012).

²⁰ Ibid.

²¹ Ibid

quality of the images by using low-angle or alternate light sources and/or certain chemicals or dyes during photography, but this is usually not necessary.²²

3.3 Collecting Latent Prints

One of the most common methods for discovering and collecting latent fingerprints is by dusting a smooth or nonporous surface with fingerprint powder (black granular, aluminum flake, black magnetic, etc.). If any prints appear, they are photographed as mentioned above and then lifted from the surface with clear adhesive tape. The lifting tape is then placed on a latent lift card to preserve the print.²³

3.4 Other Collection Methods

In addition to the methods identified above, there are special techniques for capturing prints from skin, clothing and other difficult surfaces. Amido Black, a non-specific protein stain that reacts with any protein present, is typically used for developing or enhancing bloody impressions on human skin. To reveal prints on clothing, high-tech methods such as vacuum metal deposition using gold and zinc are showing promise for the investigator.²⁴

3.5 When and how is fingerprint analysis used

Fingerprints can be used in all sorts of ways:

- Providing biometric security (for example, to control access to secure areas)
- Identifying amnesia victims and unknown deceased (such as victims of major disasters, if their fingerprints are on file)
- Conducting background checks (including applications for government employment, defense security clearance, concealed weapon permits, etc.).

Fingerprints are especially important in the criminal justice realm. Investigators and analysts can compare unknown prints collected from a crime scene to the known prints of victims, witnesses and potential suspects to assist in criminal cases. For example:

- A killer may leave their fingerprints on the suspected murder weapon
- A bank robber's fingerprints may be found on a robbery note
- In an assault case, the perpetrator may have left fingerprints on the victim's skin
- A burglar may leave fingerprints on a broken window pane

- A thief's fingerprints may be found on a safe

In addition, fingerprints can link a perpetrator to other unsolved crimes if investigators have reason to compare them, or if prints from an unsolved crime turn up as a match during a database search. Sometimes these unknown prints linking multiple crimes can help investigators piece together enough information to zero in on the culprit.²⁵

Fingerprint examiners use the ACE-V (analysis, comparison, evaluation and verification) method to reach a determination on each print.²⁶

3.5.1 Analysis

Analysis involves assessing a print to determine if it can be used for a comparison. If the print is not suitable for comparison because of inadequate quality or quantity of features, the examination ends and the print is reported as not suitable.

If the print is suitable, the analysis indicates the features to be used in the comparison and their tolerances (the amount of variation that will be accepted). The analysis may also uncover physical features such as recurves, deltas, creases and scars that help indicate where to begin the comparison.²⁷

3.5.2 Comparisons

Comparisons are performed by an analyst who views the known and suspect prints side-by-side. The analyst compares minutiae characteristics and locations to determine if they match. Known prints are often collected from persons of interest, victims, others present at the scene or through a search of one or more fingerprint databases such as the FBI's Integrated Automated Fingerprint Identification System (IAFIS). IAFIS is the largest fingerprint database in the world and, as of June 2012, held more than 72 million print records from criminals, military personnel, government employees and other civilian employees.²⁸

3.5.3 Evaluation

Evaluation is where the examiner ultimately decides if the prints are from the same source (identification or individualization), different sources (exclusion) or is inconclusive. Inconclusive results may be due to poor quality samples, lack of comparable areas, or insufficient number of corresponding or dissimilar features to be certain.²⁹

3.5.4 Verification

Verification is when another examiner independently analyzes, compares and evaluates the prints to either support or refute the conclusions of the original examiner. The

²² Ibid

²³ <https://www.ncjrs.gov/pdffiles1/nij/grants/220692.pdf> (accessed July 19, 2012)

²⁴ www.ncjrs.gov/pdffiles1/nij/grants/220692.pdf (accessed July 19, 2012).

²⁵ <https://www.ncjrs.gov/pdffiles1/nij/grants/220692.pdf> (accessed July 19, 2012)

²⁶ Ibid

²⁷ Ibid.

²⁸ www.ncjrs.gov/pdffiles1/nij/grants/220692.pdf (accessed July 19, 2012).

²⁹ Ibid

examiner may also verify the suitability of determinations made in the analysis phase.³⁰

3.6 Extent of the Evidence Act

Section (1) of the Evidence Act provides that ,This Act applies to all judicial proceedings in or before any Court, including Courts-martial, other than Courts-martial convened under any Act relating to the Army, Navy or Air Force, but not to affidavits presented to any Courts or officer, nor to proceedings before an arbitrator.³¹

3.7 Value of the Evidence Act

The aim of law is to do justice between citizen and citizen, between citizen and the state. Laws broadly fall into two classes substantive laws which define the rights, duties and liabilities of citizen and state, and procedural laws which define the methods by which substantive laws may be applied to particular uses.

The law of evidence is procedural law. It does not define rights, duties and liabilities. It prescribes the methods and procedures for sifting and weighing facts on which decisions depend in disputes over rights, duties and liabilities. The fixed aim of the Evidence Act is to discover the truth about the relevant facts and to exclude half-truths and irrelevant facts. Therefore The Evidence Act plays an important role in finding just and correct decision of the question in dispute.³²

In Chapter 2, there are titles in fingerprint analysis process. They are principles of fingerprint analysis such as loops, whorls, arches, other collection methods, when and how is fingerprint analysis used such as analysis, comparisons, evaluation and verification. Extent of the evidence act and value of the evidence act also mention in this chapter.

IV. OPINION OF FINGERPRINT EXPERTS

The definition of an expert may be referred from the provision of Section (45) of Evidence Act that an 'Expert' means a person who has special knowledge, skill or experience in any of the following:

- 1) foreign law,
- 2) science
- 3) art
- 4) handwriting or
- 5) finger impression and such knowledge has been gathered by him, by practice, by observation or proper studies.

For example, medical officer, chemical analyst, explosive expert, ballistic expert, fingerprint expert etc. According to Section (45), the definition of an expert is confined only to the five subjects or fields as mentioned above. But practically there are some more subjects or fields on which court may seek opinion an expert.³³

An expert witness is one who has devoted time and study to a special branch of learning and thus he is specially skilled on those points on which he is asked to state his opinion. His evidence on such points is admissible to enable the court to come to a satisfactory conclusion.

4.1 Duty of the Expert

- (a) An expert is not a witness of fact.
- (b) His evidence is of advisory character.
- (c) An expert deposes and does not decide.

(d) An expert witness is to furnish the judge necessary scientific criteria for testing the accuracy of the conclusion so as to enable the judge to form his independent judgment by application of the criteria to the facts proved by the evidence.³⁴

4.2 Value of Expert Opinion

The Expert evidence has two aspects:

- (a) Data evidence

It can't be rejected if it is inconsistent to oral evidence.

- (b) Opinion evidence

It is only an inference drawn from the data and it would not get precedence over the direct eye-witness testimony unless the inconsistency between the two is so great as to falsify the oral evidence.³⁵

The evidence value of the expert is as follows: - In the case of "U Tin Shwe Vs. the Union of Myanmar", It was held "comparison of hand writing with a view to discover the identity of writer, regarded as a science, is much less developed than the comparison of finger- print as a reliable form of identification of a person the same can hardly be said of handwriting. The correct approach is to regard the opinion of handwriting experts as strong corroboration generally."³⁶

4.3 Opinions of Experts

Opinion is estimation, a belief or assessment, a view held as probable, what one thinks about a particular question or topic, an assessment short of grounds of proofs, a formal

³³ Section (45), Evidence Act, 1872.

³⁴ <http://www.legalservicesindia.com/article/article/experts>

³⁵ Ibid

³⁶ Burma Law Reports, 1954, P- 358.

³⁰ Ibid

³¹ Section (1), Evidence Act, 1872.

³² Ibid

statement of reasons for the judgment, a formal statement of professional advice.³⁷

In criminal trial an opinion of a common witness relating to the matter of facts in criminal proceeding is not admissible in evidence. The oral evidence of an witness must be direct, that is to say if it refers to a fact which could be heard, it must be the evidence of witness who saw it, if it refers to a fact which could be heard, it must be the evidence of a witness says he heard it. Therefore the opinion of an ordinary witness is irrelevant in a criminal proceeding.³⁸

Under section (45) of evidence Act, when the court has to form an opinion upon a point of foreign law, or of science, or art, or as to identity of hand writing or finger impressions, the opinion upon that point of persons specially skilled in such foreign law, science or art, or in question as to identity of handwriting or finger impressions are relevant facts.³⁹

Such person is called experts. An "expert" witness is one who had devoted time and study to a special branch of learning and thus is especially skilled on that point on which he is asked to state his opinion. His evidence on such points is admissible to enable the tribunal come to a satisfactory conclusion. All persons who practice a business or profession which requires them to possess ascertain knowledge of the matter in hand are experts, so far as expertness is required.⁴⁰

Illustrations: -

(i) The question is whether the death of A was caused by poison. The opinions of experts as to the symptoms produced by the poison by when A is supposed to have died are relevant.

(ii) The question is whether A at the time of doing a certain act was by of reason of unsound of mind incapable of knowing the nature of act or that he was doing what was either wrong or contrary to law.

(iii) The question is whether a certain document was written by A. Another document is produced which is proved or admitted to have been written by A. The opinions of experts on the question whether the two documents were written by the same person, or different person, are relevant.

Under section (46) of Evidence Act, facts, not otherwise relevant, are relevant if they support or are inconsistent with the opinions of experts, when such opinions are relevant.⁴¹

For example: -

The question is, whether A was poisoned by a certain poison. The fact that other persons, were poisoned by that

poison, exhibited certain symptoms which experts affirm or deny being the symptoms of that poison is relevant.

The opinions of experts are opinions of handwriting expert, opinions of arms expert, opinions of finger print expert, opinions of medical officers, report of chemical examiner and foreign law.

4.4 Expert's Opinion and its Admissibility and Relevancy (An Analysis in view of Law of Evidence)

Section (45) to Section (51) under Chapter-V of the Evidence Act provide relevancy of opinion of third persons, which is commonly called in our day to day practice as expert's opinion. These provisions are exceptional in nature to the general rule that evidence is to be given of the facts only which are within the knowledge of a witness. The exception is based on the principle that the court can't form opinion on the matters, which are technically complicated and professionally sophisticated, without assistance of the persons who have acquired special knowledge and skill on those matters. Conditions for admitting an expert opinion are following:

(a) That the dispute can't be resolved without expert opinion and

(b) That the witness expressing the opinion is really an expert.⁴²

4.5 Fingerprint Expert and Evidence

Expert opinion on fingerprints has the same value as the opinion of any other expert. The court will not take opinion of fingerprint expert as conclusive proof but must examine his evidence in the light of surrounding circumstances in order to satisfy itself about the guilt of the accused in a criminal case. Expert evidence is opinion evidence and it can't take the place of substantive evidence. It is a rule of procedure that expert evidence must be corroborated either by clear direct evidence or by circumstantial evidence.⁴³

"Fingerprint evidence" refers to a type of expert evidence in which the characteristics and patterns of two sets of fingerprints (such as the ridges, furrows and minutiae points) are compared by an expert witness.⁴⁴

Fingerprint identification is often called "the gold standard," and this analogy is indeed an appropriate way to describe the historical relationship between fingerprint identification in particular and forensic science in general.⁴⁵

In order to assess the impact of criminal identification databases on criminal justice systems, it is first necessary to have some understanding of why biometric criminal identification databases were built in the first place.

³⁷ www.legalserviceindia.com/article/145-Law-of-Evidence.html

³⁸ Section (45), Evidence Act 1872.

³⁹ Ibid.

⁴⁰ Section (45), Evidence Act 1872.

⁴¹ Section (46), Ibid.

⁴² Section (45), Evidence Act 1872.

⁴³ <http://www.legalservicesindia.com/article/article/experts-opinion>

⁴⁴ Ibid.

⁴⁵ <https://forensiclaw.uslegal.com/evidentiary-value-of-fingerprint-analysis/>

Contrary to the popular image of fingerprinting as tool for forensic investigation, fingerprint identification was developed for purposes of criminal record keeping, rather than forensics. Specifically, fingerprinting was developed in order to facilitate the storage and retrieval of criminal histories by the state.⁴⁶

The reason as well as opinion given by a fingerprint expert as to the identity of a palm impression is admissible in evidence. The evidence given by a fingerprint expert need not necessarily be corroborate but the court must satisfy itself as to the value of the evidence of expert in the same way as it must satisfy of the value of other evidence.⁴⁷

4.6 Evidence of finger Impression Admissibility

When the thumb impression on the disputed document is disputed, this science of finger prints aids and guides the courts in resolving the dispute, if an expert's evidence is made available. The evidence of finger impression is admissible. But the person giving his opinion as in other cases must be an expert. Court is at liberty to use its own discretion and to affirm or to differ from the expert opinion. The evidence of an expert is in the nature of opinion evidence. It is advisory in nature. It is not conclusive. It is not substantive evidence. However, the Courts before acting on such an expert's evidence insist corroborative evidence. It is not a rule of law. It is a rule of caution and prudence. The expert's evidence should contain reasons. The Court should be careful in looking at such evidence and examining the same. Expert's evidence would not become evidence automatically. The weight of the evidence is dependent on the correctness of the report, the reasons given and their expertise in the field.⁴⁸

(Daw Khin Myaing V. U Soe Kyaw) it was held: the fingerprint expert gives oral evidence in court before he produces document. The evidence must is all case be direct i.e. if it refers to a fact which could be seen, heard, or perceived in any other manner, it must be the evidence of a witness who says he saw, he heard or so perceived it. So oral evidence must be direct, according to the section (60) of evidence Act. So an opinion of a person acquainted with such fingerprint expert is admissible in evidence.⁴⁹

The report of chemical examiner and fingerprint expert are essential in some case, send up for trial. Narcotic drugs and Psychotropic substance law, section (15), (16), (19), (20) and section (376) the Penal Code.⁵⁰

(Ko Kyi Sein V. Ko Soe San) case, the Lordship said: “ We have ourselves looked at these enlarged

photographs and we do not doubt the correctness of the evidence of the fingerprint expert.⁵¹

For the purposes of examination and comparison the Finger Print Expert is required to prepare or get prepared enlarged photographs of the disputed and the specimen thumb impressions to the same scale. The best enlargements for the purpose of examination are TWO, THREE or FOUR diameters, so that ridges of the impression may not loose definition or sharpness. The identical points should be marked on the enlarged photographs.⁵²

Fingerprint experts reach a conclusion as to whether the fingerprints found at the crime scene match those of the accused on the basis of matching points'. At the moment there are no universal standards of matching points. Examiners historically have employed identification standards ranging from eight to sixteen matching characteristics, or "points of similarity." Yet, the criminal identification department(CID) has stated that there should be no minimum standard and that the determination of whether there is a sufficient basis for an identification should be left to the subjective judgment of the individual examiner. The same is applied in the United Kingdom. On the contrary, other countries have set standards. For example, Australia has a minimum standard of twelve matching ridge characteristics whereas France and Italy have sixteen.⁵³

4.7 The limitations of Fingerprint Analysis

Perhaps the primary limitation of fingerprint analysis is that there must be a known print that can be compared to the collected print. Unless there is a known suspect or the perpetrator's prints are found on file in one of the many databases around the world, the collected prints will likely only be used to exclude individuals from the investigation. Another limitation is that there is no scientific way to determine the time a latent print was deposited on a surface. An examiner cannot tell how long a print has been on a surface or under what circumstances it was placed there.⁵⁴

For example, if a suspect's print is found in the kitchen of a murdered acquaintance, the print may or may not be tied to the murder, especially if the suspect claims to have visited the victim's house fairly recently. It is not possible to determine sex, age or race from a latent print; if sufficient DNA is left behind, then the party's sex can be determined.⁵⁵

Availability of digitizing and data mining hardware at all levels of police forces, high costs of digitization and preservation of fingerprint cards, creation of national fingerprint database and networking between law and order maintenance forces are some technical issues that need to be

⁴⁶ <https://www.ncjrs.gov/pdffiles1/nij/grants/220692.pdf> (accessed July 19, 2012).

⁴⁷ Section (45), Evidence Act, 1872.

⁴⁸ Ibid.

⁴⁹ (U Ko Ni, June 2011), Burma Law Reports, 1992.

⁵⁰ Section (15)(16) (19) (20)(376), Penal Code

⁵¹ Burma Law Reports, 1963, P- 672.

⁵² C.K.Johari, Identification of Finger prints and Law, Published in Institute' Journal April-June, 1995.

⁵³ <http://defensewiki.libj.org/index.php/Fingerprints>

⁵⁴ <https://www.ncjrs.gov/pdffiles1/nij/grants/220692.pdf>

⁵⁵ http://www.fbi.gov/aboutus/cjis/fingerprints_biometrics/iafis/iafis

resolved. Fingerprints from rural population represent major technical challenges. More challenges are matters of training, qualifications, testing equipment, etc. Even as finger printing remains a major source of evidence, it is being gradually supplanted by more comprehensive DNA fingerprinting that uses several other parameters such as blood, perspiration, hair, skin and semen, etc. to more conclusively establish a crime, in addition to fingerprints. Nonetheless, fingerprinting retains its relevance as institutions such as Criminal Investigation Department (CID) and the Immigration Department are working to create a unified individual profile database that, one day, may provide an intrusive source of information, without adequate legal protection for the fundamental rights of citizens.

The main object in such instances is to nullify the weight of the Expert Evidence produced by one party. In such cases Evidence of the Expert is at times discarded and the case is decided on the other evidences by the court. In a way it is an injustice to the Expert who has given a correct opinion. Section 32(6) of Evidence Act refers to the existence of relationship between deceased persons only.⁵⁶

Studying the facts which had shown above as a whole, though the opinion of expert is admissible in evidence, but that is not an only basis to prove. To decide a case, the opinion of expert must be corroborated with the evidence of eyed-witness. The opinion of expert and the evidence of eyed-witness must be depended on each other. Just as the opinion of expert, the opinion of a person acquainted with handwriting and a person having special means of knowledge can be regarded as an evidence to decide the case.⁵⁷

In Chapter 3, there is title in opinion of fingerprint experts. They are duty the expert, value of the expert opinion and opinions of experts, expert's opinion and its admissibility and relevancy, evidence of finger impression admissibility and the limitations of fingerprint analysis.

V. CONCLUSION

Each court can accept any person as an expert, and there have been instances where individuals who lack proper training and background have been declared experts. When necessary, the opponent can question potential witnesses in an attempt to show that they do not have applicable expertise and are not qualified to testify on the topic. The admissibility decision is left to the judge. The evidence given by a fingerprint expert need not necessarily be corroborate but the court must satisfy itself as to the value of the evidence of expert in the same way as it must satisfy of the value of other evidence. Fingerprints are considered to be an infallible means of identification. No two fingerprints are exactly alike. The history of fingerprints summary are: India was perhaps one of the earliest to adopt fingerprinting as a crime establishing tool,

1880 in Japan, 1888 in United Kingdom, 1892 in Argentina, 1902 in France, 1911 in Canada, 1882 in USA and 1872 in Myanmar. The chief advantages of fingerprinting are practical: it is cheaper and faster than anthropometry, and, crucially, the recording of data and the taking of inked finger impressions (required only minimal training).

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⁵⁶ Section (32), Evidence Act, 1872.

⁵⁷ Ibid.

Attachment 1

Figure of Loop, whorl & arch pattern examples.

