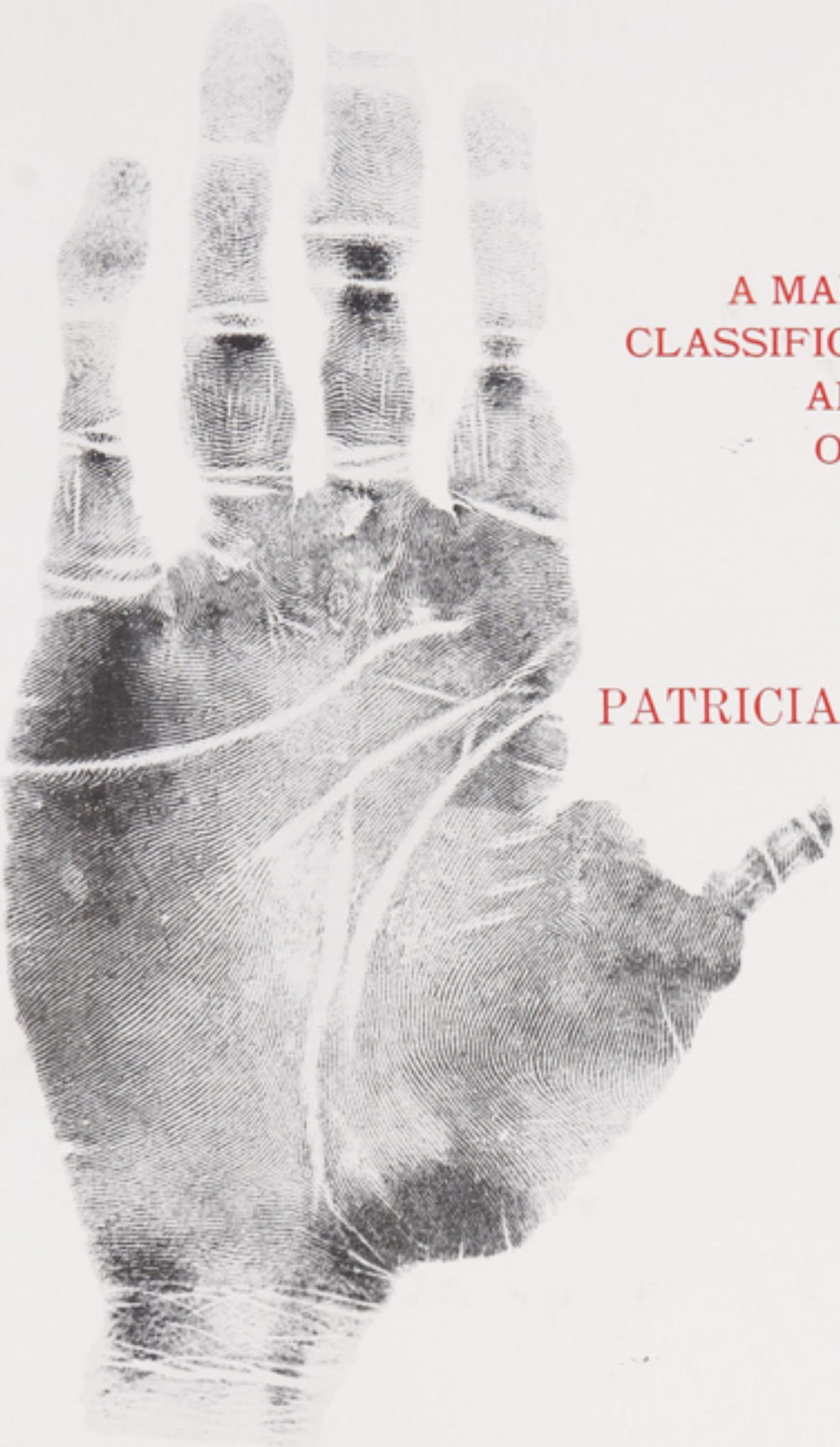

# H.I.T.

## A MANUAL FOR THE CLASSIFICATION, FILING, AND RETRIEVAL OF PALMPRINTS

PATRICIA ANNE KOLB

H.I.T. stands for the three primary palmar surface areas: *H*ypothenar, *I*nterdigital area, and *T*henar. The innovative and effective palmprint system to which this acronym refers is lucidly delineated in this book. Classification, filing, and retrieval of palmprints are all explained in detail.

CHARLES C THOMAS • PUBLISHER
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*By*

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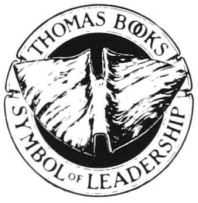


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to my wonderfully close and loving family

# INTRODUCTION

BECAUSE of the increase in the volume of latent palmprints as well as palmprint files, there is an immediate need for a competent filing system that is able to accomodate the quick and efficient search of a latent palmprint and the expedient retrieval of any palmprint.

To develop such a method, I researched books and articles on the subject and studied several thousand palmprints. After approximately two and one-half years, I developed H.I.T.

My next task was to devise a filing system that would allow for the quick search of a latent print or retrieval of a palmprint. I considered many different systems to find the most efficient one. After trial and error, I evolved a manual punch-and-sort system that offers the easiest and fastest retrieval of any palmprint and an efficient timesaving method for latent searching.

The title H.I.T. is a play on words, the initials representing the first letters of the three major areas of the palmar surface: **H**ypothenar, **I**nterdigital area, and **T**henar. So far the explanation is quite simple. However, using trade jargon, when a fingerprint technician compares an unknown latent print against known suspects' prints and effects an identification, a "hit" is made.

Hopefully, with the manual punch-and-sort system of my palmprint system, many hits will be made.

# ACKNOWLEDGMENTS

I WOULD like to express my sincere gratitude and deep appreciation to the following very special people.

Detective John Nolte, Department of Public Safety, University of Louisville, for his invaluable experience and priceless time spent in the photography of the palmprints in this book.

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The people with whom I have worked who contributed their ideas and suggestions to the technical aspects of this work.

Also to all the other people in the field of identification who gave me the incentive to finish this book.

P.A.K.

# CONTENTS

# H.I.T.
# A MANUAL FOR THE CLASSIFICATION, FILING, AND RETRIEVAL OF PALMPRINTS

# Chapter 1

# THE PALMAR SURFACE

A PALM is divided into three major areas. Each of these areas is bounded by various creases. These major areas of the palm are the hypothenar, the interdigital area, and the thenar. The major divisional creases are the radial longitudinal crease, the metacarpophalangeal crease, the distal transverse crease, and the carpal crease. The divisions of the palmar surface follow.

HYPOTHENAR: This area of the palm is located on the ulnar side of the palm and is bounded on the top by the distal transverse crease, on the thumb side by the radial longitudinal crease, and on the bottom by the carpal crease. This is the largest of the three major areas of the palm.

INTERDIGITAL AREA: This area of the palm is situated directly below the fingers and is bounded on the top by the metacarpophalangeal crease and on the bottom by the distal transverse crease.

THENAR: This palmar area is on the radial side of the palm and is bounded on the ulnar side by the radial transverse crease, which surrounds or tends to surround the entire thenar area, and on the bottom by the carpal crease.

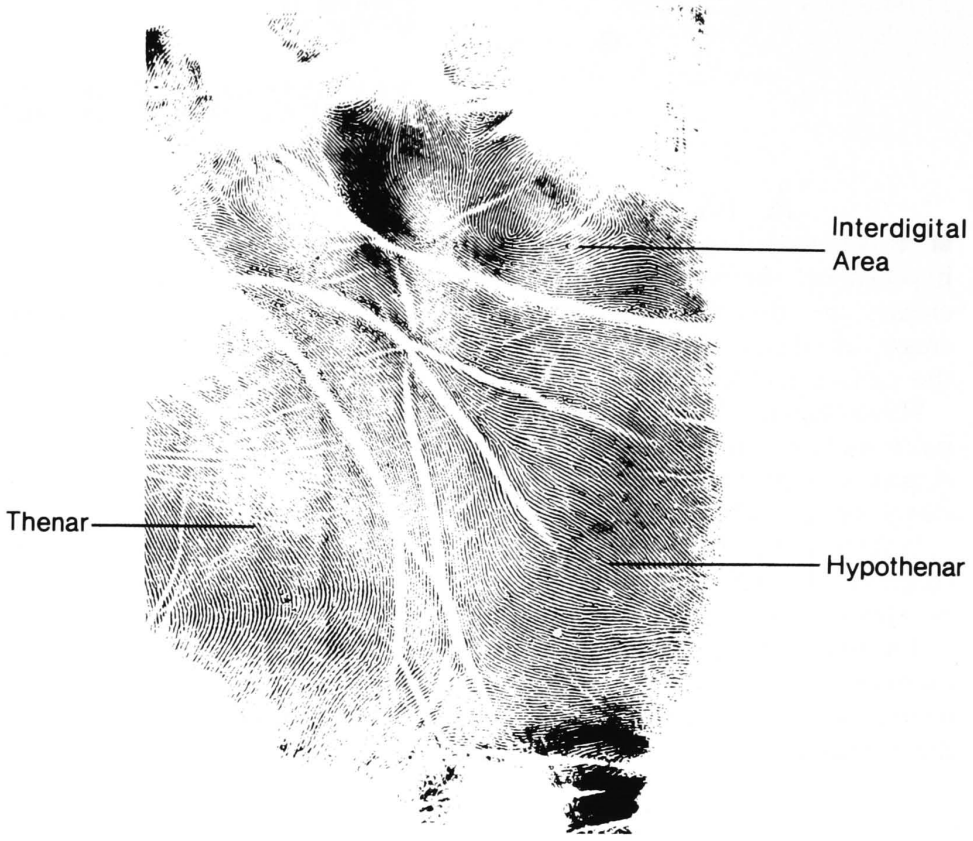


**Figure 1.** The three major areas of the palmar surface.

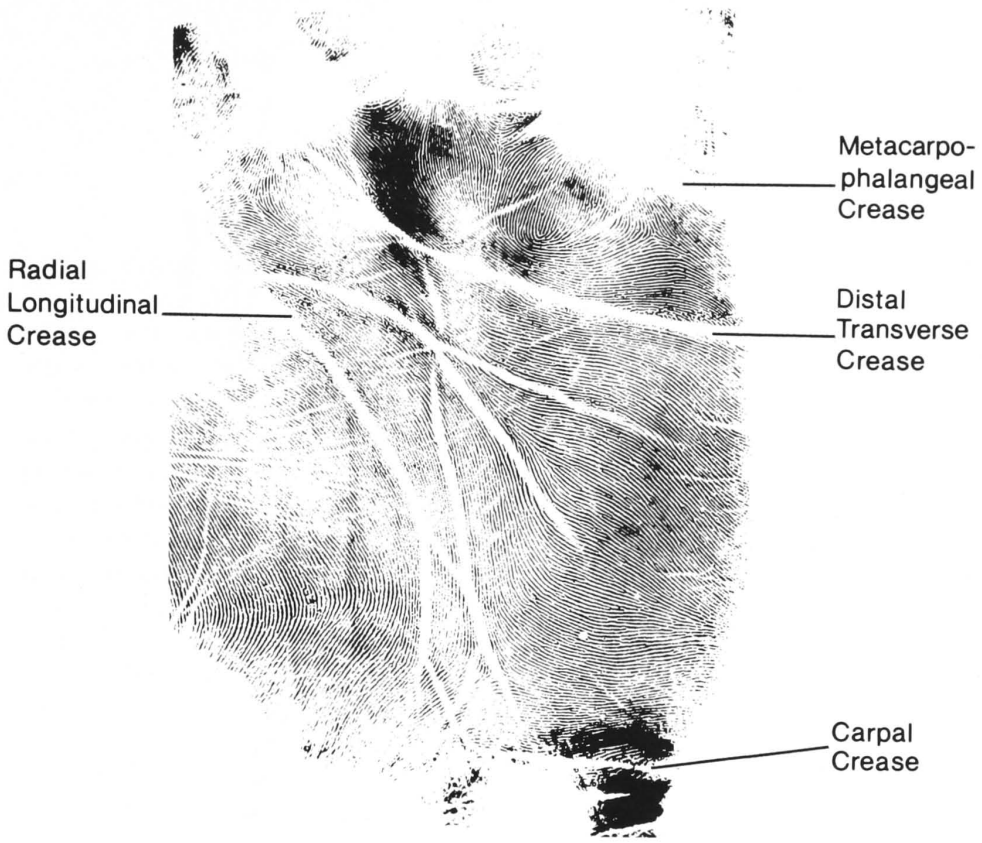


**Figure 2.** The major creases of the palmar surface.

# Chapter 2

# PALMPRINTING

WHEN a technician is called upon to palmprint a subject, several things must be taken into consideration. Of particular importance are both the inking of the palmar surface and the actual rolling of the palm, with special emphasis on applying the proper amount of pressure when taking the print.

There are two methods of inking the palmar surface. The palm can be inked using a hand-held inker roller (as used in fingerprinting), which produces heavier inking of the palmar surface. Or the technician can use a commercial palm inker roller such as the SIRCHIE® Palm Roller. Whichever method the technician decides to use, care must be taken to see that the entire area of the palm is fully and evenly inked.

When actually inking the palmar surface, special attention should be directed toward the carpal area, making sure that the inking extends below the wrist. This guarantees that the carpal crease and delta will show up in the inked impression. Insurance of these formations on the finished product will save needless referencing.

There are two basic methods in rolling the palm; the success of either in producing a clear classifiable print depends mainly upon the technician's ability to roll the palm. The technician should decide which method is best for him and continue to use it, as it will turn out the best palmprints.

The palm may be rolled in either of two directions, from the wrist to the fingers or from the fingers toward the wrist. The palmprint should be rolled on a cylindrical object. Hopefully, this will insure that the entire palmar surface is printed. Care should be taken to avoid using too much pressure, as this can cause distortion and smearing.

As in any type of identification work, a clear distinct print is always most desirable. Extreme care should be practiced so as to have an easily workable palmprint.

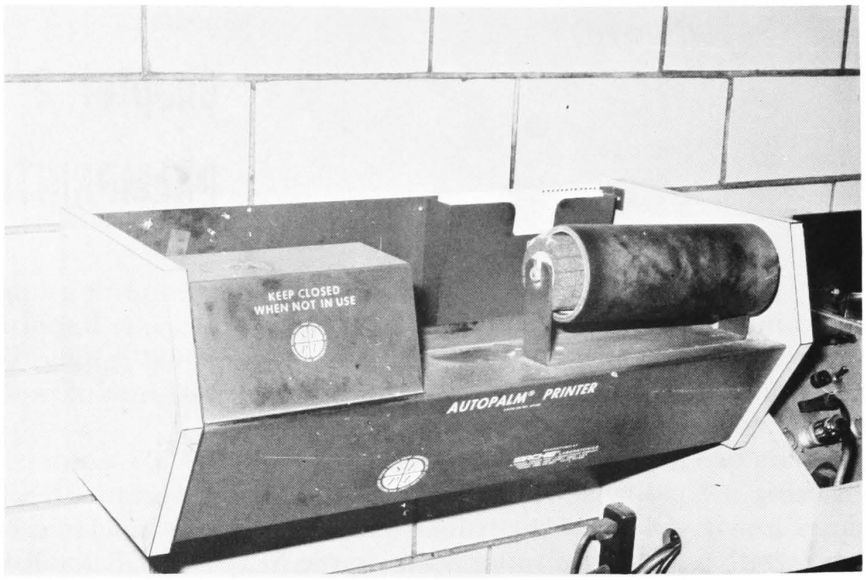


**Figure 3.** A pictorial guide to proper palmprinting. This is a commercial palmprinter, one produced by the SIRCHIE® Laboratories.

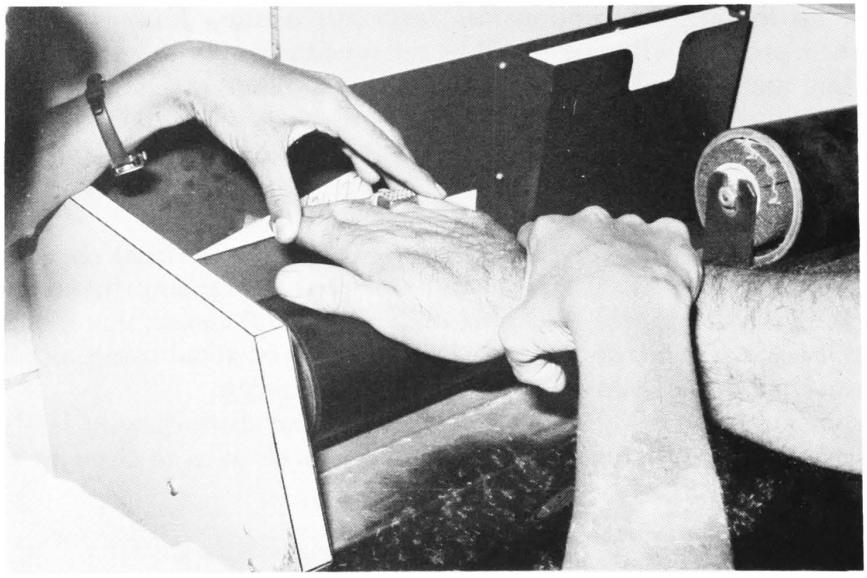

**Figure 4.** The Autopalm® Printer comes equipped with an inker roller.

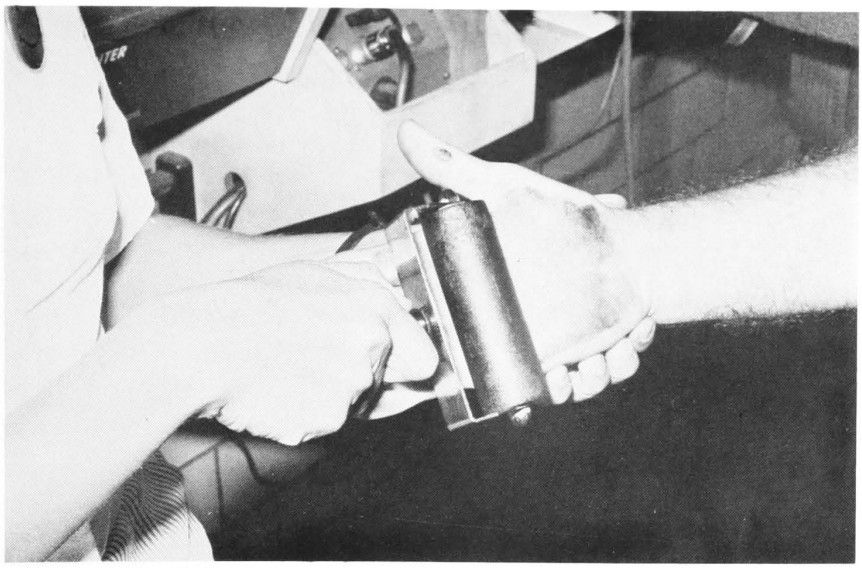

**Figure 5.** However, the palmar surface may be inked using a hand-held roller, which sometimes provides for more even and thorough inking.

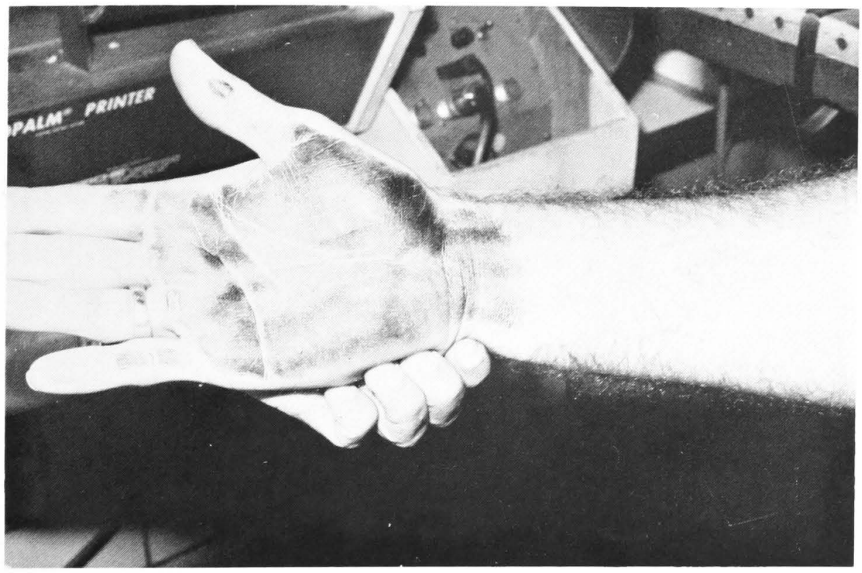


**Figure 6.** It should be noted that whatever method is used for the palm inking, care should be taken to see that the entire palm is well inked. Special emphasis should be given to insure that the inking extends well below the carpal crease.

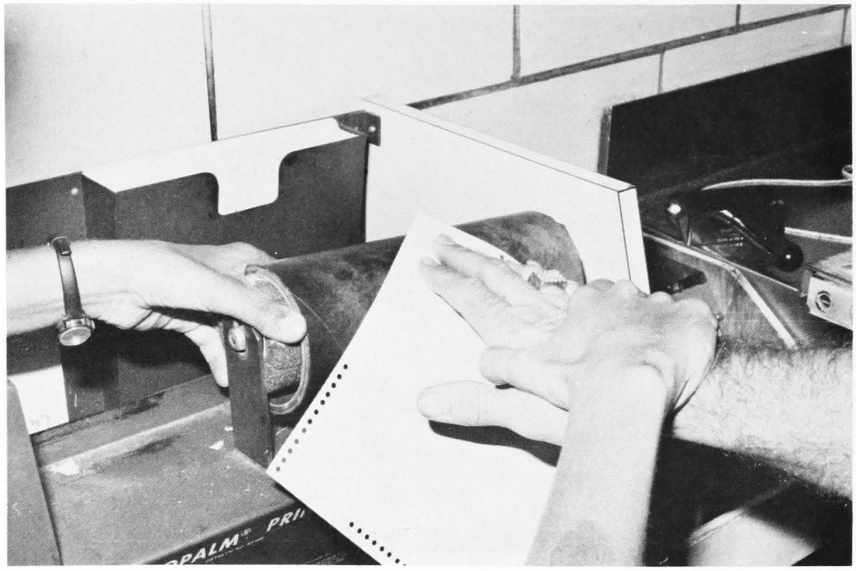

**Figure 7.** The actual rolling of the palm may be accomplished by rolling the palm from the fingers to the wrist.

**Figure 8.** On the other hand, some technicians prefer to roll the palm from the wrist toward the fingers. Whichever method is used, applying the proper pressure is very important.

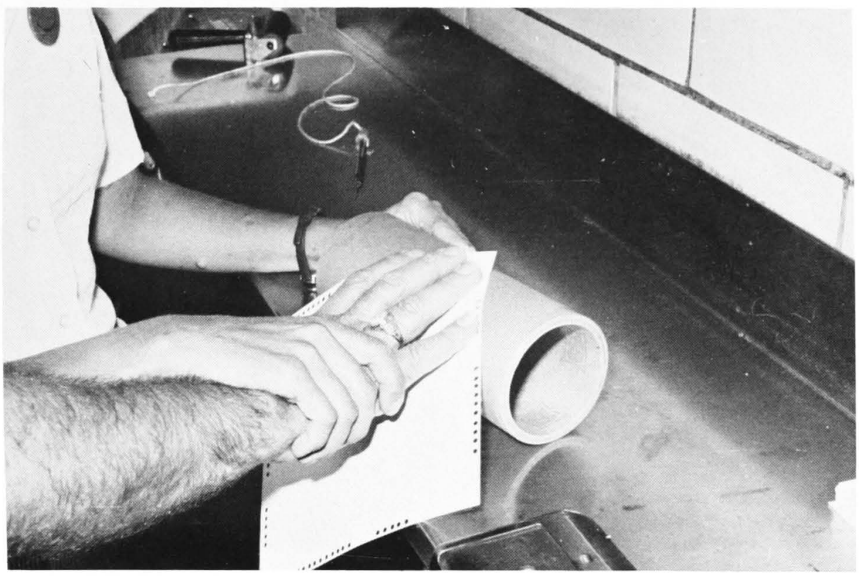

**Figure 9.** When a commercial palmprinter is not available, a hard cylindrical object does just as well and can produce some very fine palmprints. The fingers-to-wrist method of rolling the palm is shown here.

**Figure 10.** There are alternative methods, as shown by the wrist-to-fingers way of rolling a palmprint.

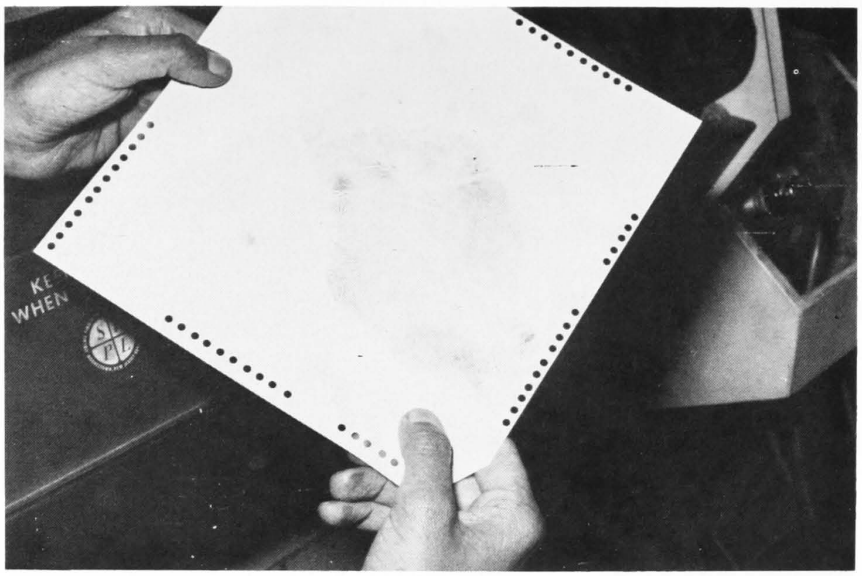

**Figure 11.** To make this palmprint system work, the palmprints put into the files must be able to be retrieved or searched. This can only be accomplished by having a thoroughly inked well-rolled palmprint. If the palmar surface is not fully or evenly inked, wasteful referencing is necessary. Time and effort are both important if a conscientious technician wants a workable system.

**Figure 12.** Proper inking of a palm.

**Figure 13.** Improper inking of a palm; the print is smeared.

**Figure 14.** Improper inking of a palm; this print is not fully rolled.