New Method Now Develops Finger Prints Left on Cloth and Other Substances

Dr. E. M. Hudson of Lindbergh-Hauptmann Trial Fame is Credited as Inventor . . . New York Police render valuable collaboration

Our readers will no doubt remember the interest aroused at the time of the Lindbergh-Hauptmann trial by the work done by Dr. E. M. Hudson, M.D., of New York City in connection with the method he had developed for obtaining latent finger prints from unpainted wood—this being especially featured by newspapers in connection with the now famous “Hauptmann Ladder.”

Now, comes the word that inspired by this ladder work, Dr. Hudson, in collaboration with the New York Police Department, has developed equipment for using chemicals to bring out finger print traces left on cloth and other substances.

At the time that Dr. Hudson’s work in connection with the “Hauptmann Ladder” had aroused so much interest we were flooded with letters from finger print men all over asking us about this. Mr. Cooke wrote to Dr. Hudson asking him to use our columns to pass on to the entire finger print profession full information regarding his “discovery” here. We have not to date heard from Dr. Hudson.

Now comes news of Dr. Hudson’s latest development in connection with his newspaper accredited success in developing prints left on cloth and other substances.

A perusal of the many press clippings sent us about this shows that probably the most complete press report is given in the following story from the “New York Times” of June 16.

“The crook, so familiar in motion pictures, who carefully wipes his finger prints from a polished surface with his handkerchief, no longer saves himself from detection if he inadvertently leaves the handkerchief as he makes off with the jewels. “He is no longer safe if his bare hands have touched sheets, pillow slips, the embroidered doily on the mahogany table, or even the black alpaca lining of his victim’s coat as he extracts valuable papers. “These are some of the advancements of finger print detection now in use by the New York Police Department, as announced yesterday by Commissioner Lewis J. Valentine.

“Although Mr. Valentine did not touch upon it in his announcement, the workers in the department’s technical research laboratory will be disappointed if, in a short time, he is not able also to announce that the use of gloves will no longer mask the whirls, loops and ridges by which human fingers are identified wherever they have left discernible marks.

“The processes of making these marks discernible are fields in which the department is advancing by means of new techniques. With them a piece of clean cloth can be converted into a portrait of the hand that has touched it, regardless of whether the cloth is black or white.

“The research on finger printing has been done in the department laboratory under plans made by Assistant Chief Inspector John J. Sullivan and Deputy Chief Inspector John J. O’Connell. The work has been carried out by Lieutenant William J. McMahon and Detectives Maurice Harnett and Francis D. Murphy, with the expert assistance of Dr. Erastus Mead Hudson, a specialist in body chemistry of 30 East Seventy-Sixth Street, New York City.

“Dr. Hudson, whose position as an expert on finger printing came through his pursuit of a hobby, figured in the trial of Bruno Richard Hauptmann for the Lindbergh kidnapping when he testified that he had raised 500 prints on the kidnapper’s ladder after the police had failed to reveal any.

“The method he used on wood in the ladder is essentially the same as that used by the New York police on white and light-colored cloth. The principal agent is silver nitrate.

“Every time a human being puts his hands down on any surface he leaves an impression. On most surfaces the marks are invisible, but they consist of a deposit of a substance called body wax, in which there is a quantity of sodium chloride, the technical term for common salt.

“If the cloth on which this deposit is left is placed in a solution of silver nitrate of about 10 per cent strength, the tiny crystals of salt become silver chloride, which is affected by light. Exposed, then, either to sunlight or artificial light, the silver chloride darkens and the print emerges in its customary appearance of a series of black concentric lines against a white background, ready for the photographer and the classification expert.

“Silver nitrate is best for light—(continued on page 9)
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colored cloth and unvarnished wood, but another chemical is used on black and dark materials. This is a calcium sulphite powder, carefully brushed on in the same manner that charcoal, or cobalt oxide, is brushed on for taking prints from polished light-colored surfaces. The powder adheres to the fatty substances in the body wax and the print emerges as a series of white lines upon a black background.

Keeping pace with these developments, perhaps the most magical under way is the one by which experts hope to be able to take a print left through a glove. The method, the experts declare, is still in an experimental stage but has been brought far enough forward to give a reasonable hope that it will be perfected.

"So far, it is reported, the success of experiments has depended on the type of material of which the glove is made, because some materials permit more of the constituents of body wax to be left upon the surface touched by the fingers within the glove. Far more, however, depends on the perfection of an agent to make these extremely faint deposits visible.

"With the newly adopted processes the print of the finger inside the glove can even now be developed and identified in a case where the person who seeks to hide his prints is careless enough to leave the glove at the scene of the crime.

Editor's note: We invite Dr. Hudson, to whom we will mail a copy of this issue, to use our columns to more fully inform the finger print profession regarding his new method for developing finger prints left on cloth and other substances, gloves included. We also invite all finger print experts who are acquainted with this new method of Dr. Hudson's and especially those having had experience with it to write us regarding their opinions and experiences—that we may publish the same in our columns for the benefit of all members of our profession. T. G. Cooke.
Santa Rosa, Cal. Sheriff's Office
Does Some Real Finger Print Work

Bureau Headed by
I. of A. S. Graduate
Walter E. Best

It has been some time since we have heard directly from our good friend, Walter E. Best. Nevertheless, we hear plenty indirectly of the good work being done by him, his bureau, and the able men working in the Sheriff's Office at Santa Rosa, California.

Two interesting news clippings from a local paper there tell of the following interesting cases, which our readers will enjoy.

The first case tells of "Identifying a Dead Man by Prints."

The science of finger printing last night led to identification of an unknown man whose body was found in a "hobo" jungle camp on the banks of Santa Rosa Creek early yesterday. Although the body was badly decomposed, prints taken by Walter E. Best, identification deputy at the sheriff's office, established the dead man's identity as Frank Devitt, about 60 and an itinerant who had been in Sonoma County for several years. Devitt, according to records in Best's files in the sheriff's office, was arrested in Santa Rosa March 8, 1931, on a minor charge. The body was taken to the Welta funeral parlors here after other itinerants had reported to police. Devitt had been dead several days, it was reported. He has no known relatives.

The second case tells how "Finger Prints Forced Confession from Robber"—

Archie Sweetser, 25-year-old Cloverdale truck driver, jailed here yesterday as a suspect in the theft of a $100 diamond ring and a gun from the home of Mr. and Mrs. D. W. Murphy in the northern city, made a complete confession to county officers last night, it was announced by Sheriff Harry L. Patteston.

Sweetser, said to have been familiar with habits of the Murphy family, was suspected Sunday when Deputy Sheriffs Walter E. Best and John A. Ellis, Jr., investigated the burglary. He was taken into custody yesterday by Police Chief James Ledford, of Cloverdale, who brought him to the county jail.

Following his arrest, Sweetser led officers to a downtown jewelry store here where he had sold the ring for $10. He was booked "for investigation" at the jail here pending the filing of charges. Sweetser has a young wife who is at present visiting in the San Francisco bay region, he revealed.

A Good Idea

One of our readers writes us—"I never fail to show every issue of Finger Print Magazine to the Editor of our newspaper. Where he was formerly opposed to Universal Finger Printing—he now gives it strong support." A good idea, men. Why not try it?

The 3rd Step in Developing Finger Prints Left on Cloth
See pages 8 and 9

Courtesy International News Photo

Showing Dr. Hudson holding handkerchief under a sun lamp (ordinary sunlight when it is bright enough will do). This brings out the print of the hand... See story on pages 8 and 9.