


Spring 1961

## Use of Nylon Spray as a Lifting Medium for Latent Impressions

Dean N. Ray

Follow this and additional works at: <https://scholarlycommons.law.northwestern.edu/jclc>

 Part of the [Criminal Law Commons](#), [Criminology Commons](#), and the [Criminology and Criminal Justice Commons](#)

---

### Recommended Citation

Dean N. Ray, Use of Nylon Spray as a Lifting Medium for Latent Impressions, 51 J. Crim. L. Criminology & Police Sci. 661 (1960-1961)

This Criminology is brought to you for free and open access by Northwestern University School of Law Scholarly Commons. It has been accepted for inclusion in Journal of Criminal Law and Criminology by an authorized editor of Northwestern University School of Law Scholarly Commons.

## USE OF NYLON SPRAY AS A LIFTING MEDIUM FOR LATENT IMPRESSIONS

DEAN N. RAY

The author is an Assistant Professor of Criminology at Fresno State College, Fresno, California. He received a Master's degree in Police Science and Administration from Washington State University, where he prepared a Master's thesis on handwriting identification techniques.—EDITOR.

One of the latest developments in the latent fingerprint field is a nylon spray material called Arcote<sup>1</sup> which was originally developed for the U. S. Army as an identification aid for obtaining fingerprint impressions from bodies, requiring identification. Arcote joins the present well known and successful materials for the lifting of latent impressions—transparent tape and rubber lifters. This newest product, which in the familiar aerosol container to facilitate handling and storage, satisfies the need for a lifting medium that can be successfully used on curved and irregular surfaces, as well as difficult areas where transparent tape or rubber lifters cannot be used.

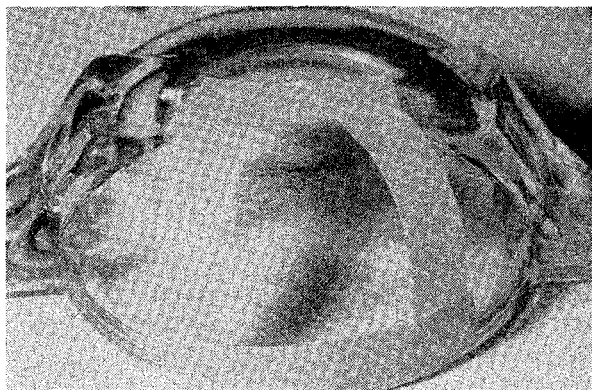
Through a series of experiments conducted by the writer it was found that this nylon spray works well on most surfaces, including glass, painted and polished wood, metals, plastics, and other smooth surfaces. It is especially effective on curved and small areas.

The location and dusting with a suitable latent powder is conducted in the usual manner. After dusting with a contrasting powder and the excess powder brushed or blown away, the area surrounding the latent impression should be "framed" with

strips of masking tape (figure 1). After the area is masked, the nylon spray material is applied directly over the latent impression and masking tape. During the spray application the aerosol can should be held approximately six or eight inches from the surface, in an upright position to insure an even application. After application, the material dries in approximately ten minutes depending upon atmospheric and surface conditions. When first applied the spray material appears white, rather than clear, and is filled with minute air cells trapped by the spray upon contacting the surface. These air cells do not reduce the quality of the lifting medium, however, since they rapidly disappear during the drying and setting of the spray. After drying the material has a very slight bluish or gray cast, which is not objectionable.

At the end of the drying period the material is easily peeled from the surface, along with the masking tape, in a very thin transparent form with the dusted latent impression actually imbedded within it. The impression cannot be rubbed from the surface of the lift, nor will the lift accept impressions from the operator using the material, as is the case with transparent tapes.

Through the application and lifting procedures



*Figure 1*

A dusted latent fingerprint impression framed with masking tape and sprayed with Arcote solution.

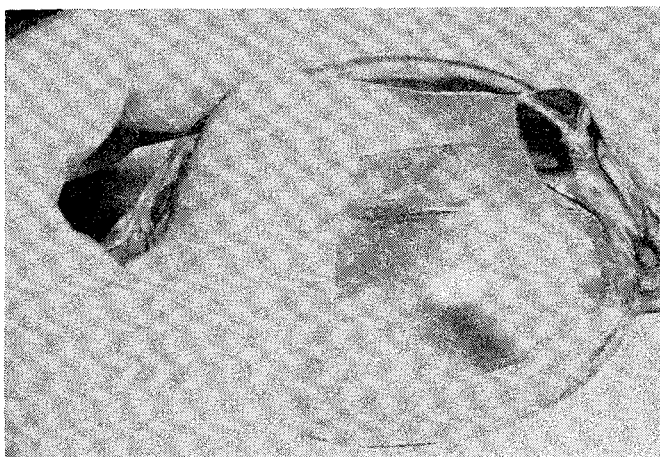


Figure 2

Removal of the dried spray material in which the latent impression is imbedded. Care must be exercised so as not to stretch the material during removal.

described above, there are no special techniques required. This is not the case, however, if the masking tape frame described earlier is not utilized. Since this nylon spray material is extremely thin and delicate, care must be exercised in the removal of the lift from the surface (figure 2). If the user is careless and pulls the lift too much, the material has a tendency to stretch to some extent during the removal. If the masking tape is not used, a second application coat may be applied after the first has dried. The second coat does not effect the latent; instead it serves to strengthen the lifting medium considerably.

When using transparent lifting tape, it may be placed on a small piece of glass (far superior to the use of a latent print card), or if a rubber lifter is used it is re-covered with the celluloid backing

peeled off prior to use. Since the nylon spray material cannot be treated similarly to the two methods above, it must be flattened to prevent its curling, by applying the masking tape and lift to a stiff card, and finally placed in an envelope or other suitable receptacle.

The only inherent disadvantage encountered in its use is its thinness, and difficulty of handling after the material is peeled from the surface. The advantages, which outweigh any disadvantage, are as follows: (1) Easily applied, (2) Easily removed from the surface, (3) Works exceptionally well on curved or irregular surfaces, and (4) An aerosol container is easily handled and stored. Certainly, Arcote is useful material for lifting latent prints.