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INTEGRATED EXPERTISE IN DACTYLOSCOPIC RESEARCH OF FRAUDULENT FINGERPRINTS

РАЗРАБОТКА И ВНЕДРЕНИЕ КОМПЛЕКСНОЙ ЭКСПЕРТИЗЫ В ДАКТИЛОСКОПИЧЕСКОМ ИССЛЕДОВАНИИ СФАЛЬСИФИЦИРОВАННЫХ ОТПЕЧАТКОВ ПАЛЬЦЕВ РУК

Summary. The article reveals the problem of establishing the facts of fingerprint falsification. The need to study traces of hands, primarily diagnostic issues, namely the establishment of false posture. When conducting a fingerprint study on the fact of fake fingerprints of human hands may indicate various signs. Before consideration of this problem it is possible to distinguish two aspects connected with the establishment of the species belonging to the research of a trace of a person and his biological origin - whether the object for research is not given analogue to the papillary pattern of inanimate nature. The process of falsifying traces of human hands and the ways of its detection was studied by scientists from many countries who studied the origin of fake traces of hands and their detection. This problem, undoubtedly, raises issues related to the integration of knowledge of fingerprinting and dermatology in part of the complex examination. It is important, first of all, to say that only if information on all possible methods and methods of falsifying fingerprints, materials and tools used for this purpose are used, their chemical composition and peculiarities of tracing, namely, that only a sufficient information base for conducting a full-fledged study. Establishing the fact of falsifying fingerprints is a promising direction for the development of diagnostic fingerprinting, namely, a comprehensive solution to this issue by specialists of two categories, namely, criminologists-fingerprinters and forensic biologists.

Key words: falsification of fingerprints, complex examination, research of traces of hands, methods of falsifying traces of hands.

Аннотация. В статье раскрывается проблема установления фактов фальсификации отпечатков пальцев рук, необходимости исследования следов рук в первую очередь диагностических вопросов, а именно установление фальсификации следов рук. При проведении дактилоскопического исследования на факт подделки отпечатков пальцев рук человека, могут указывать разные признаки. К рассмотрению данной проблемы можно выделить два аспекта, связанных с установлением видовой принадлежности представленного на исследование следа человека и его биологического происхождения – не предоставлен ли на исследование объект аналогом папиллярного узора из неживой природы. Процесс фальсификации следов рук человека и способы его выявления исследовались научными работниками многих стран, которые изучали происхождение сфальсифицированных следов рук и их выявления. Эта проблема, бесспорно, затрагивает вопрос, связанный с интеграцией знаний дактилоскопии и дерматоглифики в части выполнения комплексной экспертизы. Важно в первую очередь говорить о том, что лишь при условии наличия информации обо всех возможных способах и методах фальсификации следов пальцев рук, веществах и инструментах, которые для этого используются, их химическом составе и особенностях следообразования, так как лишь тогда формируется достаточная информационная база для проведения полноценного исследования. Установление факта фальсификации отпечатков пальцев рук, выступает перспективным направлением развития диагностической дактилоскопии, а именно комплексного решения этого вопроса специалистами двух категорий, а именно криминалистов-дактилоскопистов и судебных биологов.

Ключевые слова: фальсификация следов пальцев рук, комплексная экспертиза, исследование следов рук, методы фальсификации следов рук.

The purpose of this article is to substantiate the need to identify a separate area of comprehensive forensic dactyloscopic and forensic biological examination to determine the fact of falsification of fingerprints.

Problem statement: Today the problem of forgery of handprints, namely their falsification, is growing. Nowadays, modern technical and technological capabilities open up new and new ways for criminals to carry out high-quality falsification of human handprints. At carrying out dactyloscopic research the fact of forgery of fingerprints of the person can be specified by various signs. Before considering this problem, we can distinguish two aspects related to the establishment of the species of the human footprint presented for research and its biological origin.

The falsification (tampering) of fingerprints was investigated in their works by A.S. Bashilova, N.V. Efremenko, O.G. Gaiduk, D.Ya. Bachara, O.V. Voloshenko, V.S. Vischuk, V.P. Bahina, P.C. Belkin, P.D. Bilenchuk, M.S. Bokarius, V.G. Goncharenko, I.V. Gore, A.V. Ishchenko, V.A. Kolesnik, V.K. Lisichenko, M.M. Lisova, S.S. Samishchenko, O.V. Oderia, V.K. Kirwell, M.A. Pogoretsky, M.V. Saltevsky, T.A. Sedova, V.S. Kuzmichov, M.Ya. Segai, A.V. Stalmakhov, V.V. Tishchenko, V.Yu. Shepitko, M.G. Shcherbakovsky, O.A. Sokolova, A.G. Sukharev and other forensic scientists.

However, despite such a rich scientific potential, studies of theoretical and legal problems, which are devoted to the characteristics of complex examination of falsified fingerprints, as objects of diagnostic fingerprinting, unfortunately, were not conducted.

Presenting main material. In the modern world, dactyloscopic research is very effectively used in expert practice. What is one of the most up-to-date and most effective forensic research that allows identifying a person. Categories of law enforcement activities are especially valued by fingerprint expertise for its high quality and accuracy. At the end of the XIX century, scientists managed to prove the fact that the papillary pattern on the phalanges of the fingers of the

person's face is a purely individual characteristic, stable and unchanged throughout the life of man [4, p.148]. Errors in the findings of the fingerprinting study are actually reduced to zero. This helps the fingerprint experts quickly identify the person who left her traces of papillary lines at the scene and set up bodies of unidentified corpses. All this causes the interest of the category of persons engaged in illegal activities, the ways of changing, substituting and falsifying fingerprints of human papillary patterns.

Therefore, there is a need for a fingerprint study to consider the very stomach content in the traces of human papillary patterns. Fatty human substance is one of the most common objects of forensic research.

The versatility and variety of items that are discovered at the scene of the event bear the tragic traces of individuals suspected of being involved with the event, which allows them to be used for a multi-faceted forensic investigation. The conclusion that traces on one or another subject are left by a certain person is important, and more often, crucial for exposing the offender, since it establishes the presence of a particular person at the crime scene, his direct contact with a particular subject.

Therefore, in this situation, there was a need for the development of a modern methodology for the study of fingerprints and their intolerable substance, caused by the needs of the investigative, investigative and expert practice, as well as the inquiries of the courts on improving the quality of investigation, and the wider use of scientific and technical means in exposing criminals. In recent years, the number of criminal offenses has increased and, at the same time, the number of crimes discovered is decreasing. In order to change this situation, it is necessary to take measures to improve the technical base and the development of new techniques, allowing more efficient use of various traces remaining in place after the crime. The use in the expert practice of the latest advances in science and technology allows you to receive answers

to previously unresolved questions, as well as to conduct traditional expert dactyloscopic research at a new, more informational level.

In particular, consideration of this problem can be distinguished from two aspects related to the establishment of the species belonging to the study of a person's trace and its biological origin - is not given to study the object analogous to the papillary pattern of inanimate nature.

First of all, one of the tasks is related to establishing the identity of a trail given to a trainee to a person and his species affiliation. As for the solution of this issue, then, as a rule, when detecting traces of papillary lines in place of the event it is established that they belong to a person. However, in a number of cases, the papillary pattern of a person may cause complications when differentiated.

Since the falsification of fingerprints is often found in criminology at the present time, and specific recommendations aimed at solving the problem are not defined, there is a need for a more in-depth study of this issue.

Analyzing the practical aspect of forensic research, it is important to say that only if information on all possible methods and methods of falsifying fingerprints, materials and tools used for this purpose, their chemical composition and trace formation features is formed is sufficient information base for conducting a full-fledged study. If the forensic expert knows the possible ways of counterfeiting, it will be easier for them to detect them. In view of this, it is advisable to outline and analyze the methods of falsifying the prints.

The main methods include:

- application of plastic masses;
- method of photolithography;
- photopolymeric method;
- laser engraving on rubber;
- flash technology;

- vulcanization of rubber from matrices obtained on the basis of the use of solid photopolymer compositions.

The main content of any of the above falsifications is the manufacture of gelatin or another basis, which reliably reflects the finger of the hand and its use to imprint certain objects at the scene of crime [2, p. 149]. Most often, criminals use photopolymeric and photopoligraphy, since they do not require high financial costs, are relatively simpler in implementation and provide the opportunity to copy and reproduce the fingerprint as accurately as possible.

In addressing this issue it is advisable to take into account the fact that reducing the skin elasticity and the appearance of many secondary folds - "white lines" in humans can be explained by the different nature of their origin. On one side, in the presence of a person, they can be fragments - in the footsteps of leather seals from lychee, calf or pork skin, which is characterized by the so-called "merry" pattern in the form of a system of small white lines. On the other hand, in the presence of a person with pronounced skin atrophy, as well as some diseases associated with violation of the process of pattern formation, for example, with various types of dysplasia, hypohidrotic exodermal dysplasia (Pain syndrome), aplasia, etc., papillary lines (combs) can have a simplified direction, characteristic of "white lines". In this case there is a lack of sweat glands, underdevelopment of sweat glands or their complete absence.

One of the first ways to falsify fingerprints was SS. Samishchenko, who among them includes: 1) forgery of fingerprints using a cliché ie artificially created track-creating object; 2) the production of powder and photocopies of traces and imprints and their adherence to a criminal case as traces of fingers discovered on the scene; 3) throwing real objects with the fingers of the hands left by the person during the actual track contact, as evidence to the place of the event or the direct attachment of such object to the materials of the criminal case; 4) the transfer of fingerprints from one object to another related to the crime, by direct or indirect contact [3, p.226].

Carrying out the classification of methods of falsification of papillary patterns, O.A. Sokolova distinguishes two of their groups: 1) deliberate change in the pattern of the papillary pattern directly on the skin of man and his removal; 2) masking the papillary pattern (its replacement) [2, p.67]. A similar way to the classification of methods falsification of papillary patterns approach AS. Bashilova and N.V. Efremenko, which conditionally divide them into two groups: 1) change the pattern of the papillary pattern directly on the human skin; 2) the production of artificial papillary patterns in the form of bulky dummies or plane copies [1, p.177].

This problem, undoubtedly, raises issues related to the integration of knowledge of fingerprinting and dermatology in part of the complex examination.

Falsified hand prints can be defined as traces of hands, completely altered as a result of deliberate removal of the papillary pattern, masking or creating an artificial papillary pattern and partially altered as a result of deliberate change in the papillary pattern. Classification of false impressions of hands is carried out according to different classification criteria, the main of which is the method of falsification of fingerprints. Other classification criteria that are offered in forensic science, by their nature, are criminal-legal (the nature of the intention (goals) of falsification of traces, the subject who created the falsified traces) or logically incomplete (the time for which the pattern of papillary patterns changes), in the name With what they can not be based on forensic classification of fake handprints, or complement their classification by the method of falsification (the volume of changes in papillary patterns, the object of change in papillary patterns, the place of falsity tracks), and therefore play a secondary importance in the implementation of the classification of counterfeit forensic traces hands.

When conducting a fingerprint study on the fact of forgery of fingerprints of human hands may indicate the following features: 1) uneven increase in the

width of the papillary lines due to the formation of bloating and clumps; 2) distortion of the reflection of individual elements of the structure of the papillary pattern; 3) non-characteristic microprint for the papillary lines; 4) the presence or absence of connecting antennae between the papillary lines; 5) unreasonable gaps in the places of drowning of papillary lines; 6) the absence of pores in the papillary lines.

In the case of falsifying traces of hands, the establishment of the place of its implementation plays a significant role, since it is at this place that a significant amount of information on the methods of falsification and those who committed it may be obtained.

First of all, the problem of forensic research on the subject of detecting the falsification of fingerprints of human hands is mainly due to the fact that in the list of issues that can be posed during the fingerprint study there are no questions about identifying signs of possible trace falsification. The imperfection of the regulatory framework is due to the fact that the risk of falsification of fingerprints is not taken into account during a fingerprint investigation, does not develop and is not perfected to the extent that modern criminology needs it.

It is important to analyze the content of the fingerprint survey and its individual issues, it must be said that overcoming certain difficulties is possible provided the normative and practical improvement of the method of fingerprinting research. First of all, it is necessary to include in the list of issues of fingerprint examination the question of possible falsification of prints. A very important aspect is the development, first of all, extremely necessary for the productive work of criminological experts, methods of conducting complex fingerprinting research taking into account possible falsification of the prints, in order to avoid mistakes in the conclusions of experts-fingerprinters.

The second part of the questions is related to the establishment of the biological origin of the object or it is analogous to the papillary pattern of inanimate nature, that is, the falsified object.

Based on the meaning of the term "falsification" (Late Latin falsificatio, falsifico - fake), you can define it as: 1) malicious, deliberate distortion of data, deliberately misinterpretation of something. 2) change with the mercenary purpose of the appearance or properties of objects; fake. It should be noted that the origin of traces can be presented from two perspectives: natural biological origin (true) and artificial origin or counterfeit - false traces.

Traces of natural biological origin (true) traces of hands are usually the result of the life of any person and their origin does not cause doubt, including when they are detected on the site of the event. The second group of tracks - traces of artificial origin or fake - fake traces. Therefore, let's dwell on issues that are directly related to the improvement of the method of producing fingerprint examinations in connection with the possible falsification of papillary patterns.

The solution of this issue primarily requires the establishment of a cataract substance in the studied trace. In this case, the material of the following copying surface is important, on which the papillary patterns are duplicated; dactyloscopic film or tape-copying tape of the type "Scotch". In the latter case, the stinging substance of the trace is not subject to investigation.

Testing of the test material for combustion can be carried out by the Express-analysis, which is accompanied by a characteristic specific odor of organic matter. And in case of detecting a copy of the papillary pattern from a synthetic substance, a similar odor is absent, as well as the smell is absent, and the burning process is changed to its melting. The biological origin of the trace can also be confirmed by the discovery of various groups of bacteria in it.

With artificial receipt of a copy of the natural papillary pattern, you may have difficulty diagnosing. Therefore, in this situation, the decision of this issue

should be carried out as part of a complex examination. Experts from two categories, namely, dactyloscopists and biologists, should take part in this expert examination. In our time, this type of examination is not actually conducted.

Proceeding from this, the question of establishing the presence of stomach substance in the trace of papillary lines or its absence, the question of establishing the biological nature of the trace must first be solved by conducting forensic examination. This direction of complex expertise, namely in the fingerprint scanning of fake fingerprints, at present, needs to be developed, implemented, developed, and integrated into practice.

Conclusions. Thus, it should be concluded that the absence of stomach contents in the trace of the trace of papillary lines may be one of the diagnostic features of their possible falsification. In the study of traces of hands in diagnostic issues, namely, the presence of falsification, it is necessary to develop methods and techniques for studying the traces of hands in a complex of specialists of two categories, namely, dactyloscopists and biologists. In the comprehensive knowledge of the laws that are the basis for diagnostic research aimed at establishing the fact of fingerprint fraud, as well as the formation of a complex of knowledge based on the modern development of diagnostic fingerprinting.

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