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ORGANIZATIONAL AND LEGAL ASPECTS OF FORENSIC EXPERT ACTIVITIES AND THE USE OF SPECIAL KNOWLEDGE IN LEGAL PROCEEDINGS

PROBLEMS OF THEORY AND PRACTICE OF FORENSIC EXAMINATIONS AND RESEARCH

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FEATURES OF USE OF SPECIAL CONSTRUCTION AND TECHNICAL KNOWLEDGE AT INVESTIGATION OF ECONOMIC CRIMES IN THE SPHERE OF CONSTRUCTION

Successful identification and disclosure of economic crimes in the sphere of construction is promoted by the correct use by law enforcement officers of special construction and technical knowledge at stages of initiation of legal proceedings and preliminary investigation. Special knowledge allows to establish the actual circumstances of crime and to make the justified decisions during judicial proceedings.

At investigation of all types of economic crimes in the sphere of construction special knowledge is used not only in a procedural form, but also in the form of consultations and special researches within investigation and search operations, before initiation of legal proceedings. On the brought criminal cases judicial construction technical expertizes, as a rule, are appointed. In many cases charge is based on the data established within production of judicial construction technical expertize.

The most widespread in the construction sphere economic crimes and characteristic aspects of their investigation are considered in the article. The author revealed a number of the key features arising at investigation of these crimes by means of use of special construction and technical knowledge. The specifics of the correct use by subjects of criminal prosecution of special construction and technical knowledge at stages of initiation of legal proceedings and preliminary investigation are considered. Recommendations for the investigator according to proofs on the conducted expert research are provided.

Key words: investigation, economic crimes, sphere of construction, use of special knowledge, construction technical expertize.

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FORENSIC EXAMINATIONS IN IDENTIFYING FALSE DENUNCIATION WHEN INSPRESENTING RAPORATIONS

The article deals with the features of the staging implementation by the applicant in case of a false denunciation of rape, characterizes the typical mechanism of marking formation, defines the role and possibilities of forensic examinations in its identification, some features of their purpose and. These data are based on the analysis of scientific literary sources, the results of law enforcement agencies, the study of law enforcement materials and statistical data, the survey of employees of the investigative and operational units of the Irkutsk region justifies the relevance of the topic; tracing, determines the role and possibilities of forensic examinations in her revealed some features of their purpose. Questioning, a summary of judicial and investigative practices, logical-legal and statistical methods, and comparative legal analysis were used during the research work. Special attention was paid to the mistakes of the investigators made in the appointment and preparation of some of the most important for the staging examinations. Some recommendations were presented to officials of the preliminary investigation bodies, aimed at identifying false denunciations of rape through the appointment of examinations. The possibility of elements of expert research were analyzed and formulated as well. The author has determined that the results of forensic examinations can serve as a basis for bringing the guilty party to criminal responsibility for a deliberately false denunciation of rape.

Key words: criminalistics, staging, the victim, a false denunciation, observation of the crime scene, rape, preparation, traces, examination, mistakes, the order on the appointment.

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ON THE FUNDAMENTAL BASIS AND INTERDISCIPLINARY TIES OF JUDICIAL DRAWING

The article deals with topical issues of the development of judicial handwriting and forensic handwriting expertise.

The authors define a modern view on the subject and tasks of judicial handwriting on the basis of solving the problems of judicial handwriting expertise on the basis of writing and handwriting. In this regard, the laws of a theoretical, methodical, organizational and tactical nature, which are related to the achievements of science and technology, which form the fundamental basis of judicial handwriting, are considered.

In the context of the above, the connections of judicial handwriting with three scientific blocks are considered: natural science and psychology; mathematics, probability theory and other exact sciences; disciplines of legal profile, including jurisprudence. An opinion is expressed on their significance in the development of judicial handwriting and forensic handwriting expertise.

Separately presented are interdisciplinary links of forensic handwriting with forensic science and the theory of forensic examination, the sciences of substantive and procedural law, operational search activity, criminology, forensic psychology, forensic medicine, forensic psychiatry.

Key words: judicial handwriting and forensic handwriting examination, signs of writing and handwriting, fundamental basis, scientific blocks, interdisciplinary communication.

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MODERN PROBLEMS OF SCIENTIFIC AND METHODOLOGICAL SUPPORT OF FINGERPRINT FORENSIC INVESTIGATION

Based on the analysis of expert practice materials, testing results of the employees of forensic divisions of the Ministry of Internal Affairs of Russia, the problem of forensic investigation of fingerprints formed under the negative influence of object properties and environmental factors is considered.

It is noted that the cognitive model of forensic investigation of fingerprints established today in science and practice does not cover all cases of fingerprints formation, leaving beyond the expert's capabilities to identify and evaluate fingerprints formed on objects with an oily, moist surface, as well as objects with unstable structure. This should also include objects, the surface of which, after the formation of fingerprints on it, has been exposed to environmental factors.

Such complicated cases of the fingerprints formation, according to the authors, require consideration of a larger number of circumstances taken into account in the detection and forensic study of these fingerprints. They include objective findings on the nature and forensically important properties involved in the fingerprints formation of objects, characteristics of reflection of signs in fingerprints, acceptable technical forensic means and investigational methods.

All this should be considered as elements of an innovative cognitive model for identifying and investigating fingerprints, the implementation of which will increase the effectiveness of scientific and methodological support for forensic investigations of fingerprints, expand the possibilities of fingerprint examination in the solution and investigation of crimes.

Key words: fingerprints, fingerprint examination, technical forensic means and methods, negative properties of objects, the action of environmental factors, cognitive model, scientific and methodological support.

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[illegible]

[illegible] [1–5] [illegible] [6–8] [illegible] [9–14].

[illegible][1] [illegible]

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[1] [illegible] 25 % [illegible] 2015–2018 [illegible] 14 %.

[illegible]

[illegible] [2, с. 76–81; 15; 16, с. 7]. [illegible]

[illegible]

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[1] [illegible] 2016 [illegible]

[illegible] [1; 3–5]. [illegible]

[illegible] (рис. 1, 2).

[illegible]

Рис. 1. [illegible] 3 %-[illegible];

[illegible] [11];

[illegible][1] [11]

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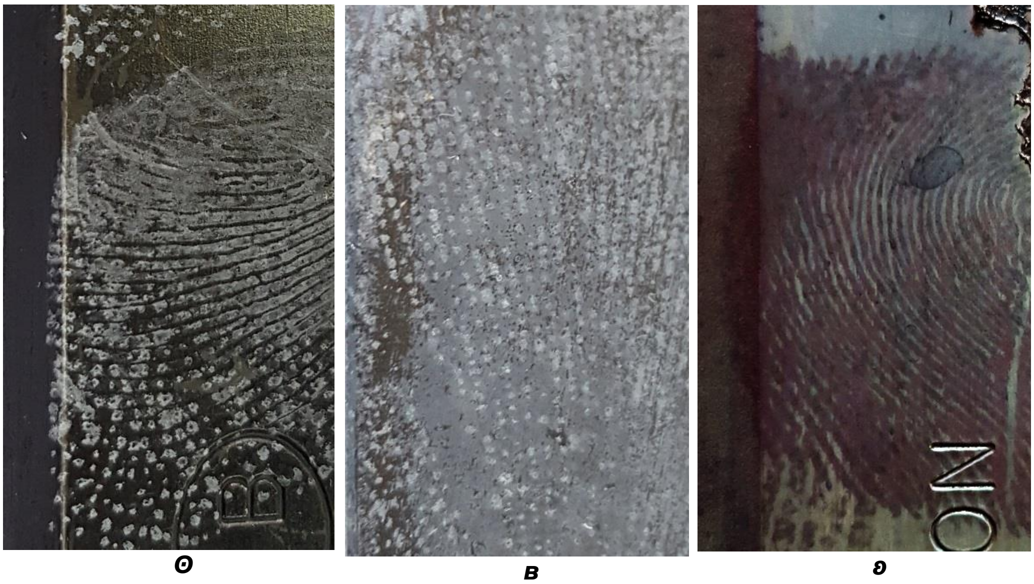
[1] [illegible] 1 [illegible] 10 [illegible] 27.10.2017).



[illegible]

[illegible]

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[1] [illegible]

[illegible]

[illegible] [2 с. 107–109; 17].

[illegible]

[illegible]

1. [illegible], 1955.

2. [illegible], 2011.

3. [illegible], 2017.

4. [illegible], 2010.

5. [illegible], 2010.

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16. [illegible] 1988.

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[illegible] 67.521.3
[illegible] 343.982.34 DOI 10.25724/VAMVD.INOP

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[illegible] 1 [illegible]
[illegible]

[illegible]

[illegible] 675 [illegible] 16 [illegible] 77 [illegible]

[illegible] [illegible]

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INSIDE THE PALM HANDHELD SYMMETRY OF PALMOGLYPHICS CHARACTERISTICS AS THE CRITERION PARTS OF THE PALMS TO ONE PERSON

The article deals with the essence of portable (or shift) symmetry of different parts of the palms as a biological basis for solving the diagnostic problem of belonging parts of the palm to one or different persons. The degree of regularity and random symmetry paleographically portable signs three major areas of the palm: thenar, hypothenar and area under the fingers. Symmetry studied in pairs comparing "us" and "them", obtained on the basis of study paleographically cards 675 people. All examined relatively healthy individuals, of both sex, Caucasian and Mongoloid race, aged 16 to 77 years. Data on frequency of occurrence of combinations of dermatoglyphic signs, reliability of their differences in pairs of comparison "us" and "them" according to t-criterion, and also values of the diagnostic coefficients showing how many times this or that combination of signs is more often observed provided that the investigated sites of palms belong to one person are presented.

Key words: hypothenar, fingerprinting, dermatoglyphics, palm, palmoglyphics, papillary pattern, the traces of the hands, thenar, whole, part.

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[illegible] [1]. [illegible] [2].

[illegible] [3]. [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] t-[illegible] (p[illegible]0,05) [illegible] DK). [illegible] Statistica-10.0.

[illegible].

1. [illegible] Th [illegible] H.

1.1. [illegible] 0,06 [illegible]), [illegible] 0,51 [illegible]).

1.2. [illegible] 0,66 [illegible] Th [illegible] 14 [illegible] 20, [illegible] H [illegible] 15 [illegible] 26. [illegible] H) [illegible] 1). [illegible] «17[illegible]19» [illegible] «18[illegible]20», [illegible] «16[illegible]20» [illegible] «16[illegible]21». [illegible] 7 (DK=7,0).

1.3. [illegible] Th [illegible] H [illegible] 0,62 [illegible] Th [illegible] H [illegible] 0 [illegible] 3, [illegible] H [illegible] H) [illegible] 1). [illegible] «0[illegible]1» [illegible] «1[illegible]2», [illegible] «1[illegible]0», «1[illegible]1», «0[illegible]2» [illegible] «0[illegible]3». [illegible] 6 (DK=[illegible]6,0). [illegible] (t=0,7), [illegible] «1[illegible]1» [illegible] (t=[illegible]3,4; DK=[illegible]2,5). [illegible] (t=0,0), [illegible] «0[illegible]2», [illegible] (t=[illegible]4,7; DK=[illegible]2,7). [illegible]

[illegible] 1

[illegible] Th [illegible] H

[illegible]	[illegible] Th-H	[illegible], P		[illegible], m		t	DK
		«[illegible]»	«[illegible]»	«[illegible]»	«[illegible]»		
[illegible]	[illegible] ï 5 [illegible] ï 10	10,8	27,0	1,8	2,6	ï 5,2	ï 2,5
	ï 3	18,9	2,7	2,3	0,9	6,6	7,0
	ï 1	32,4	16,2	2,7	2,1	4,7	2,0
	2	2,7	10,8	0,9	1,8	ï 4,0	ï 4,0
	[illegible], %	64,8	56,7				
[illegible]	ï 3	2,7	8,1	0,9	1,6	ï 2,9	ï 3,0
	ï 1	32,4	16,2	2,7	2,1	4,7	2,0
	1	2,7	16,2	0,9	2,1	ï 5,8	ï 6,0
	[illegible], %	37,8	40,5				
[illegible]	ï 2	2,7	10,8	0,9	1,8	ï 4,0	ï 4,0
	ï 1	8,1	16,2	1,6	2,1	ï 3,1	ï 2,0
	ï 0,5	21,6	13,5	2,4	2,0	2,6	1,6
	0	37,8	24,3	2,8	2,5	3,6	1,6
	1	2,7	16,2	0,9	2,1	ï 5,8	ï 6,0
	[illegible], %	72,9	81,0				
[illegible]	[illegible] ï 0,5 [illegible] ï 3	2,7	21,6	0,9	2,4	ï 7,4	ï 8,0
	0	27,0	18,9	2,6	2,3	2,4	(1,4)
	0,5	8,1	2,7	1,6	0,9	2,9	3,0
	1	59,5	29,8	2,8	2,8	6,9	2,0
	[illegible] 1,5 [illegible] 3	2,7	27,0	0,9	2,6	ï 8,9	ï 10,0
	[illegible], %	100,0	100,0				

[illegible]: [illegible] (p<0,05); [illegible] DK ï [illegible] «[illegible]», [illegible] ï [illegible] «[illegible]» (p<0,05); [illegible] DK [illegible] (p<0,05), [illegible] 1,5), [illegible] 2 [illegible] 1 [illegible] 2 [illegible] 2 [illegible] 3 [illegible].

1.4. [illegible] Th [illegible] H [illegible] 0,06 ([illegible]), [illegible]; 0,22 ([illegible]), [illegible] 0,63 ([illegible]), [illegible].

[illegible] 0 [illegible] 3, [illegible] H [illegible] 0,5 [illegible] H) [illegible] «[illegible]» ([illegible] 1). [illegible] H [illegible] 1ï 2 [illegible] «[illegible]». [illegible] Th [illegible] «[illegible]» [illegible] 1 [illegible] «[illegible]»: «1ï 1», «2ï 2,5» [illegible] «3–3», [illegible] «[illegible]»: «0–1», «0–2», «1–3» [illegible] «2–1». [illegible] 6 (DK=–6,0).

1.5. [illegible] ([illegible]) [illegible] Th [illegible] H [illegible] 0,82 ([illegible]). [illegible] Th [illegible] H [illegible] 0 [illegible] 4, [illegible] Th [illegible] 0,5–1 [illegible] Th) [illegible] «[illegible]» ([illegible] 1). [illegible] Th [illegible] 1,5–3 [illegible] «[illegible]». [illegible] ([illegible] 0,5 [illegible]). [illegible] «[illegible]»: «1–1» [illegible] «4–3», [illegible] «[illegible]»: «0–1», «0–2», «1–3» [illegible] «2–1». [illegible] 10 (DK=–10,0).

2. [illegible] H.

2.1. [illegible] (IV [illegible]) [illegible] H [illegible] 0,05 – [illegible].

2.2. [illegible] ([illegible]) [illegible] c–d [illegible] t–d [illegible] – 0,45 – [illegible]. [illegible] c–d [illegible] 11 [illegible] 24, [illegible] H – [illegible] 15 [illegible] 26. [illegible] ([illegible] 2 [illegible] 5 [illegible]), [illegible] ([illegible] 2). [illegible] 2 (DK=–2,0).

[illegible] 2

[illegible] IV [illegible] H

[illegible]	[illegible] c–d – t–d	[illegible], P		[illegible], m		t	DK
		«[illegible]»	«[illegible]»	«[illegible]»	«[illegible]»		
[illegible]	[illegible] 0 [illegible] –4	20,0	28,0	2,3	2,6	–2,3	(–1,4)
	[illegible] 2 [illegible] 5	73,0	58,3	2,6	2,8	3,8	(1,3)
	[illegible] 6 [illegible] 9	7,0	13,7	1,5	2,0	–2,7	–2,0
	[illegible], %	100,0	100,0				
[illegible]	[illegible] –2 [illegible] –3	2,7	18,9	0,9	2,3	–6,6	–7,0
	0	51,4	16,3	2,9	2,1	9,8	3,2
	[illegible] 1 [illegible] 2	21,6	45,9	2,4	2,9	–6,5	–2,1
	[illegible], %	75,7	81,1				
[illegible]	[illegible] –1 [illegible] –3	8,1	16,2	1,6	2,1	–3,1	–2,0
	[illegible] –0,5 [illegible] 0	73,0	56,8	2,6	2,9	4,2	(1,3)
	[illegible] 1 [illegible] 2	5,4	16,2	1,3	2,1	–4,3	–3,0
	[illegible], %	86,5	89,2				
[illegible]	[illegible] –2 [illegible] –4	5,4	13,5	1,3	2,0	–3,4	–2,5
	0	64,9	40,6	2,7	2,9	6,2	1,6
	[illegible] 1 [illegible] 2	2,7	21,6	0,9	2,4	–7,4	–8,0
	[illegible], %	73,0	75,7				

2.3. [illegible] IV [illegible] 0,75 [illegible] IV [illegible] 0 [illegible] 3, [illegible] «[illegible]» ([illegible] 2). [illegible] «0–0», «1–1» [illegible] «2–3», [illegible] «2–1» [illegible] «1–3». [illegible] 7 (DK=–7,0).

2.4. [illegible] IV [illegible] 0,43 [illegible]; 0,42 [illegible], [illegible] 0,46 [illegible] Th [illegible]

[illegible] IV [illegible] 0 [illegible] 3, [illegible] «[illegible]» ([illegible] 2), [illegible] (1, 2 [illegible] 3 [illegible]) [illegible] «1–1» [illegible] «2–2», [illegible] «0–2», «0–3», «1–3» [illegible] «2–1». [illegible] (DK=–3,0).

2.5. [illegible] IV [illegible] 0,77 [illegible] IV [illegible] 0 [illegible] 4, [illegible] 1 [illegible] «[illegible]» ([illegible] 2). [illegible] IV [illegible] 2–4 [illegible] «0–0», «1–1», «2–2» [illegible] «2–3», [illegible] «1–2», «1–3» [illegible] «2–1». [illegible] 9 ([illegible] «1–1»).

2.6. [illegible] pl.d [illegible] (pl.d [illegible] pl.pr). [illegible] 0,40 [illegible] pl.d ([illegible] 3). [illegible] 8 (DK=–8,0 [illegible] «14–12»).

[illegible] 3

[illegible] d–pl.d [illegible] pl.d–pl.pr

[illegible] d–pl.d – pl.d–pl.pr	[illegible], P		[illegible], m		t	DK
	«[illegible]»	«[illegible]»	«[illegible]»	«[illegible]»		
[illegible] 2 [illegible] –3	10,0	19,7	1,7	2,3	–3,4	–2,0
[illegible] 3 [illegible] 5	52,0	34,6	2,9	2,7	4,3	1,5
[illegible], %	62,0	54,3				

3. [illegible] ([illegible]) [illegible] ([illegible]) [illegible] II [illegible] IV [illegible].

3.1. [illegible] II [illegible] IV [illegible] 0,02 – [illegible] ([illegible]) [illegible].

3.2. [illegible] ([illegible]) [illegible] ai – b [illegible] ci – d [illegible] 0,39 – [illegible] ai – b [illegible] 12 [illegible] 27, [illegible] ci – d – [illegible] 11 [illegible] 24. [illegible] ci – d ([illegible] 4). [illegible] 4 (DK=–4,3).

[illegible] 4

[illegible] II [illegible] IV [illegible]

[illegible]	[illegible] ai – b – ci – d	[illegible], P		[illegible], m		t	DK
		«[illegible]»	«[illegible]»	«[illegible]»	«[illegible]»		
[illegible]	[illegible] –4 [illegible] –12	2,3	10,0	0,9	1,7	–4,0	–4,3
	[illegible] 1 [illegible] –3	79,7	60,3	2,3	2,8	5,4	(1,3)
	[illegible] 2 [illegible] 15	18,0	29,7	2,2	2,6	–3,4	–1,7
	[illegible], %	100,0	100,0				
[illegible]	–1	29,7	2,7	2,6	0,9	9,7	11,0
	0	64,9	21,6	2,8	2,4	11,9	3,0
	[illegible] 1 [illegible] 3	5,4	75,7	1,3	2,5	–25,1	–14,0
	[illegible], %	100,0	100,0				
[illegible]	[illegible] –1 [illegible] –2,5	10,8	24,4	1,8	2,5	–4,4	–2,3
	–0,5	8,1	2,7	1,6	0,9	2,9	3,0
	[illegible] 0 [illegible] 0,5	75,7	54,0	2,5	2,9	5,7	(1,4)
	[illegible] 1 [illegible] 2	5,4	18,9	1,3	2,3	–5,2	–3,5
	[illegible], %	100,0	100,0				
[illegible]	[illegible] –1 [illegible] –4	13,5	29,7	2	2,6	–4,9	–2,2
	0	70,3	40,6	2,6	2,8	7,7	1,7
	[illegible] 1 [illegible] 4	16,2	29,7	2,1	2,6	–4,0	–1,8
	[illegible], %	100,0	100,0				

3.3. [illegible] ([illegible]) [illegible] 0,73 – [illegible] II [illegible] IV [illegible] 0 [illegible] 3, [illegible] IV [illegible] ([illegible]) [illegible] 1 [illegible] «[illegible]» ([illegible] 4). [illegible] «[illegible]»: «0 – 0», «1 – 1» [illegible] «2 – 2», [illegible]

[illegible]

1. [illegible] 2019. ¯ 1. [illegible]. 76ï 90.

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[illegible] 67.521.6
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[illegible] 2016ї 2018 [illegible]

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PROBLEMS OF PRACTICAL USE OF FUZZY DIGITAL IMAGES OF PERSONS OBTAINED FROM SURVEILLANCE CAMERAS IN THE DETECTION AND INVESTIGATION OF CRIMES

The development of digital technology has led to the widespread use of photo and video equipment for recording and searching for evidence in the Commission of crimes. Video recordings taken from crime scenes are important sources of information for establishing the circumstances of the crime and the persons involved. As the analysis of the practice of production of portrait examinations due to the fuzziness of images (low quality), the objects entering the study remain unused in full practical activity, during the operational-investigative and investigative actions.

The review of portrait training examinations, graduates of the Ministry of Internal Affairs for 2016-2018 years showed that if the video image was initially fuzzy, they are recognized as unsuitable for identification of the person on the grounds of appearance. Thus, most half of these recording materials remain unused in the detection and investigation of crimes. To use such records, technological processing of fuzzy images is necessary in order to accurately recognize the appearance of a person in an image. The article proposes methods for improving video quality, and the possibility of creating files for the fuzzy images taken from places unsolved crimes in the total structure of habitoscopic counts.

Key words: portrait examination, fuzzy video images, image modeling, low image resolution, color rendering, digital noise level, anthropometric algorithms, hand-drawn images, introduction of card files, image acquisition process, digital editor, pixel, image processing, image transformation, image defects, color correction filters.

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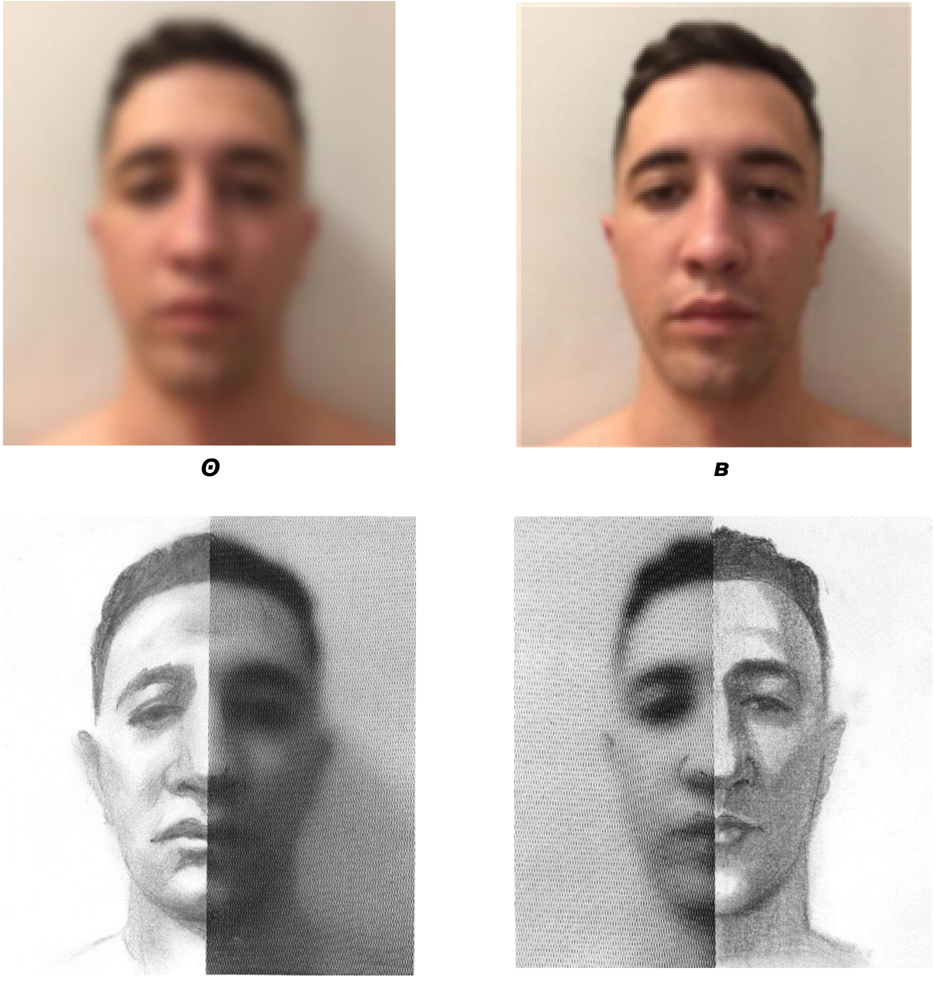

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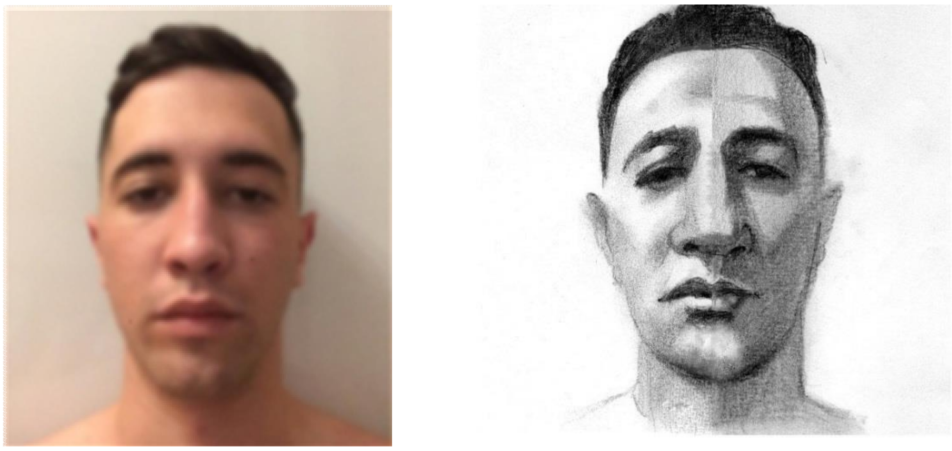
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DESIGN FEATURES DISGUISED FIREARMS AS AN OBJECT OF FORENSIC INVESTIGATION

The article analyzes the design features of disguised firearms, emphasizes the urgency of the problem of forensic research of such firing devices. The author investigated the history of the appearance of disguised firearms, which camouflaged under household items, which were customary for the relevant historical period. Manufacturers usually, the shooting device was given the appearance of not having anything to do with the known samples of firearms, which is typical for the present time.

The article provides examples from expert practice, indicating an increase in the number of studies of disguised firearms. It is indicated that the conduct of expert studies of such objects of forensic ballistic examination based on the Typical Method is fraught with separate difficulties. It is noted the need for a detailed study of the design of such a weapon, the correct assessment of its damaging properties, as well as the mandatory registration of the appropriate forensic accounting in order to establish the source of origin.

Key words: forensic ballistic examination, firearms, improvised firearms, atypical firearms, masked firearms, shooting device, illegal circulation of firearms, shooting pen, shooting cell phone.

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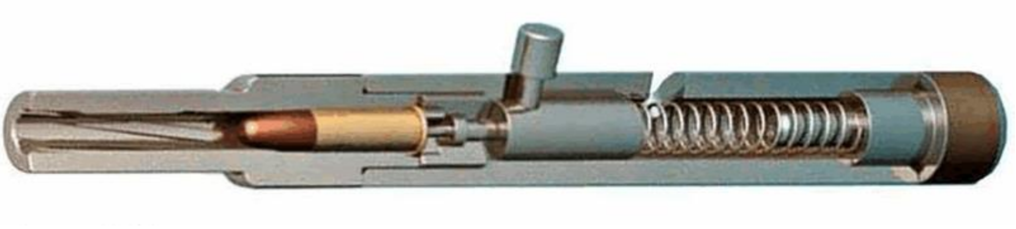

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THE IMPACT OF THE SIZE OF MUZZLE CHOKES ON THE ¯ 3 SHOT DISPERSION WHEN SHOOTING SMOOTHBORE RIFLES USING CARTRIDGES WITH GAS-CHECK PADS

The investigation of crimes committed with the use of smoothbore hunting rifles is closely connected with the necessity to determine the distance of a shot by shot pattern.

The analysis of special literature shows that in spite of quite a wide range of accumulated empirical materials in this sphere a lot of the given data about shot pattern characteristics are often controversial and have become obsolete in large part. This is because of the use of gas-check pads in modern cartridges which are made of polymeric materials, that helped better obturate impinging gases and in such a way provide an increase of the utilization rate of powder charge energy.

To determine the impact of the size of muzzle chokes on the shot dispersion when shooting with such cartridges, experimental examination was conducted. The obtained data were arranged into corresponding tables and diagrams. As a result of the analysis of the damage on barriers, common factors of the impact of the size of muzzle chokes on the shot dispersion were established.

The obtained data will be useful for forensic experts while conducting forensic ballistic examinations to establish the circumstances of using smoothbore hunting rifles as well as for cadets and trainees when studying Forensic Ballistics and Forensic Ballistic Examination.

Key words: smoothbore hunting rifle, shot pattern, weapon traces on barriers, distance of a shot.

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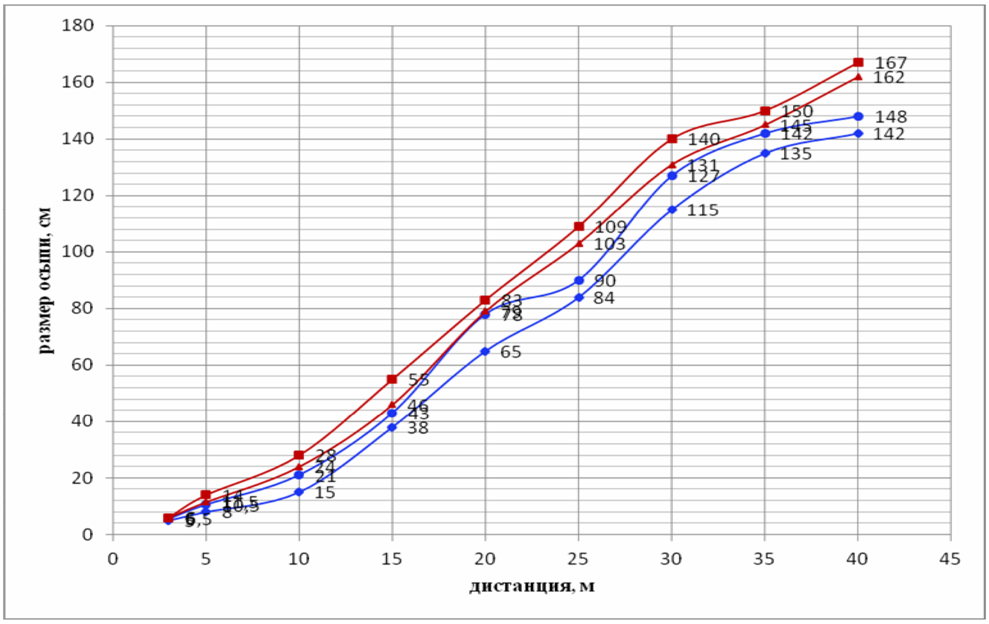

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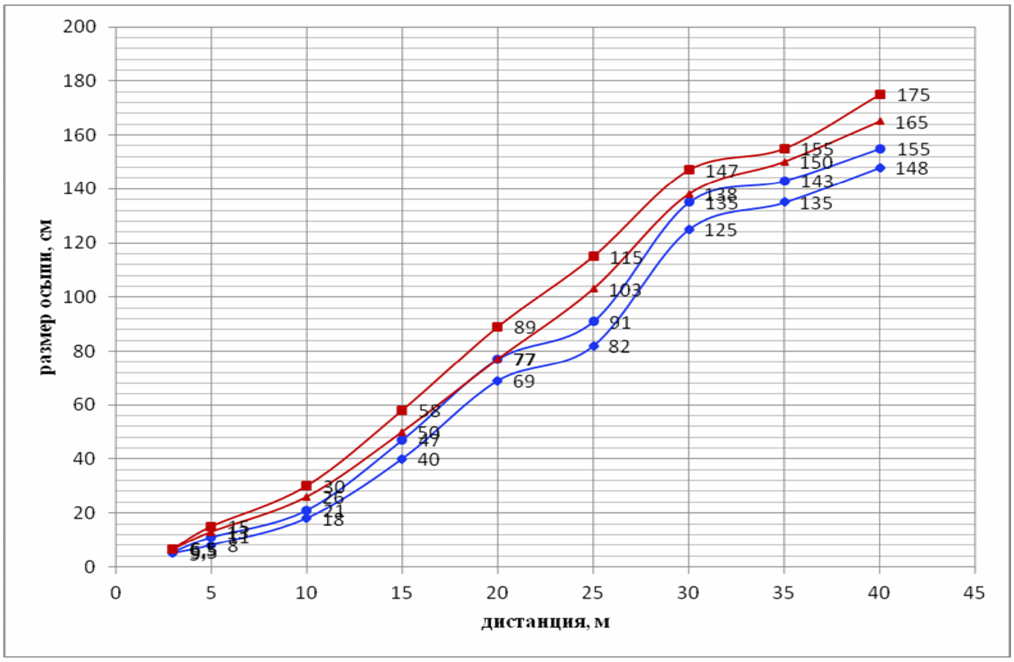

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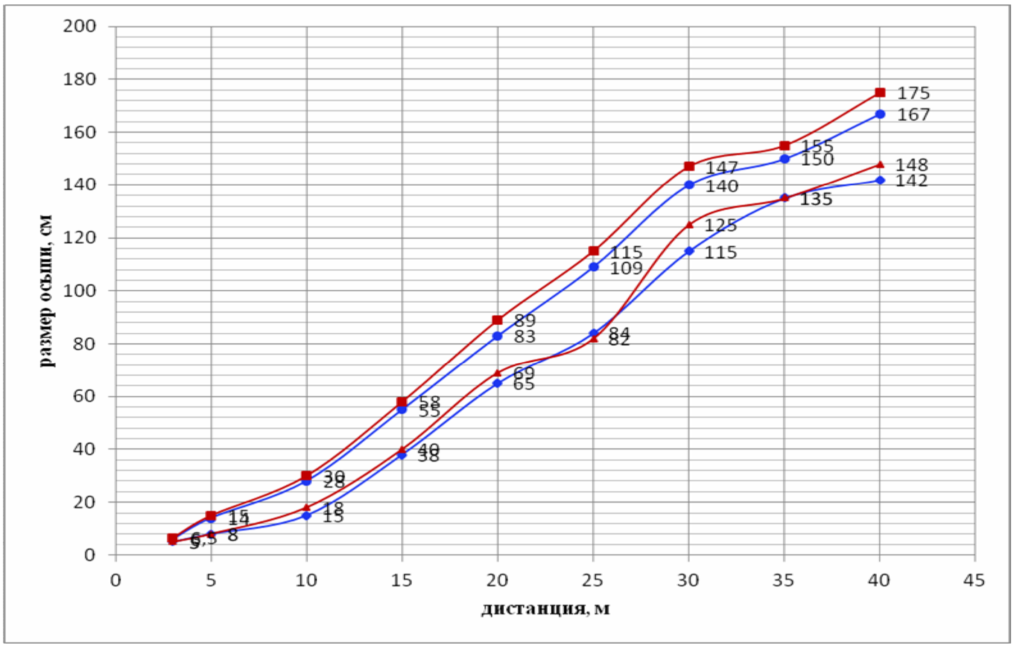

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METHODOLOGICAL ASPECTS OF EXAMINING TRACES OF A SHORT-DISTANCE SHOT ALONG THE SURFACE OF COMPLEX-SHAPE BARRIERS

The author conducts a comparative examination of traces of a short-distance shot from the Makarov pistol, Kalashnikov AK-74 and AKS-74U assault rifles along the surface of targets with a shape similar to a human forearm. There is a description of targets preparation, peculiarities of their installation and experimental shooting. The author compares the topography of additional traces of a shot when a firearm long axis ranges along and across a bigger side of targets.

The results of the examination show that while shooting firearms with different power levels along the surface of the barrier with a configuration similar to a human forearm, the most differences in additional traces appear when the direction of a shot is changed (along or across a target long axis). Along with this, the height of a firearm muzzle end position over the barrier and the distance to it also exert influence on the trace vision. It is determined that using targets most similar to the shape of a real object during experimental shooting at the moment of a criminal shot provides conditions for a more objective display of additional traces of a shot and facilitates an increase in the effectiveness of expert examinations aimed at establishing the circumstances of a shot.

Key words: shooting along the barrier, Makarov pistol, Kalashnikov assault rifle, complex-shape targets, topography of additional traces of a shot, determining the distance and direction of a shot.

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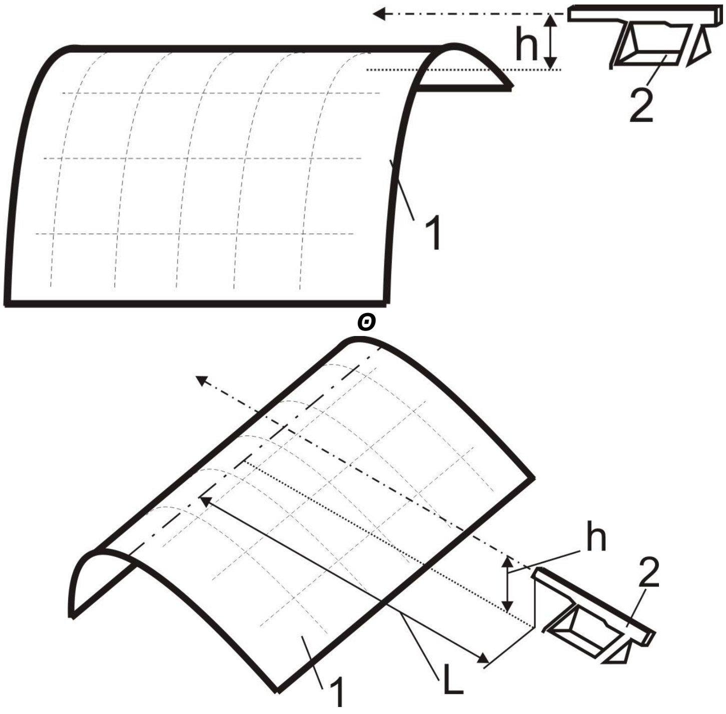

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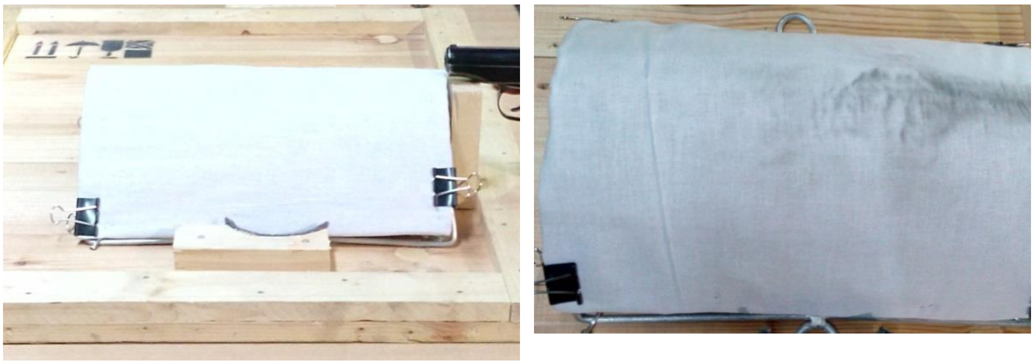

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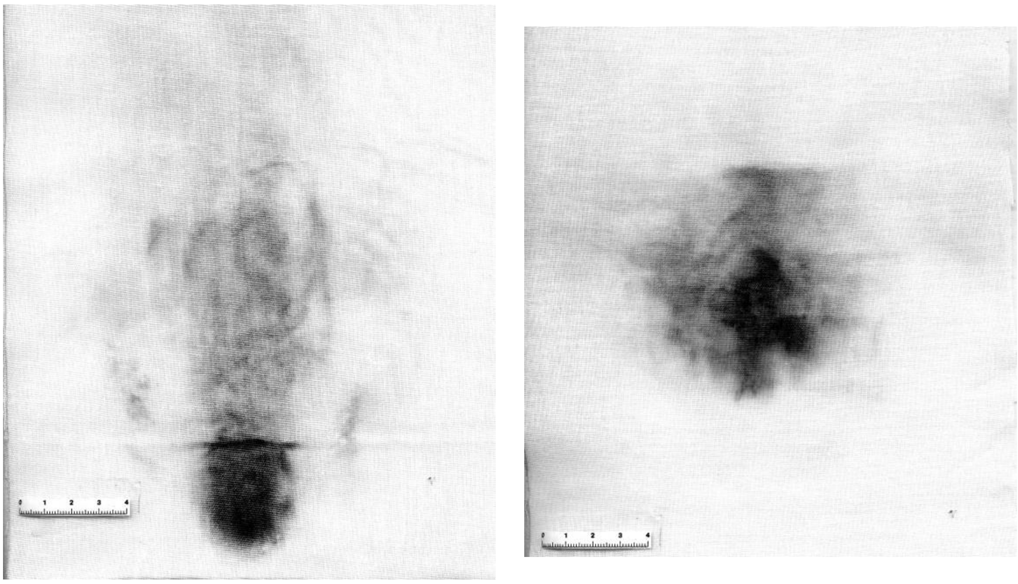
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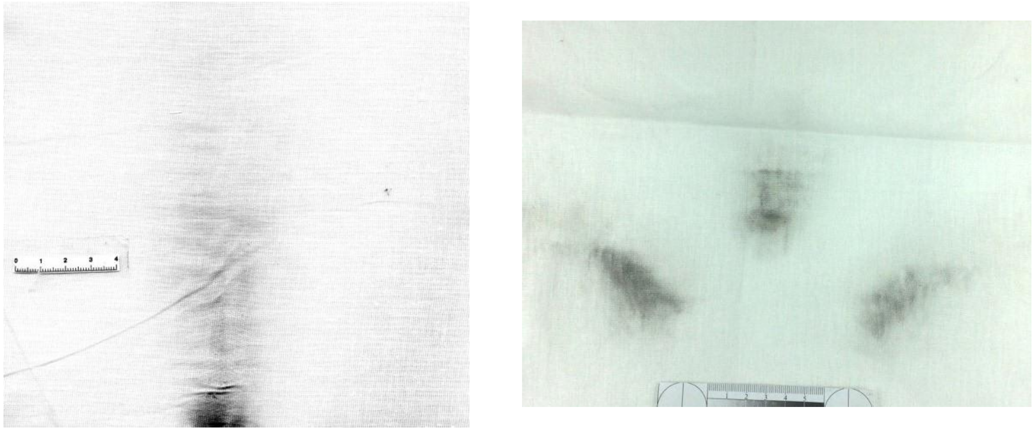
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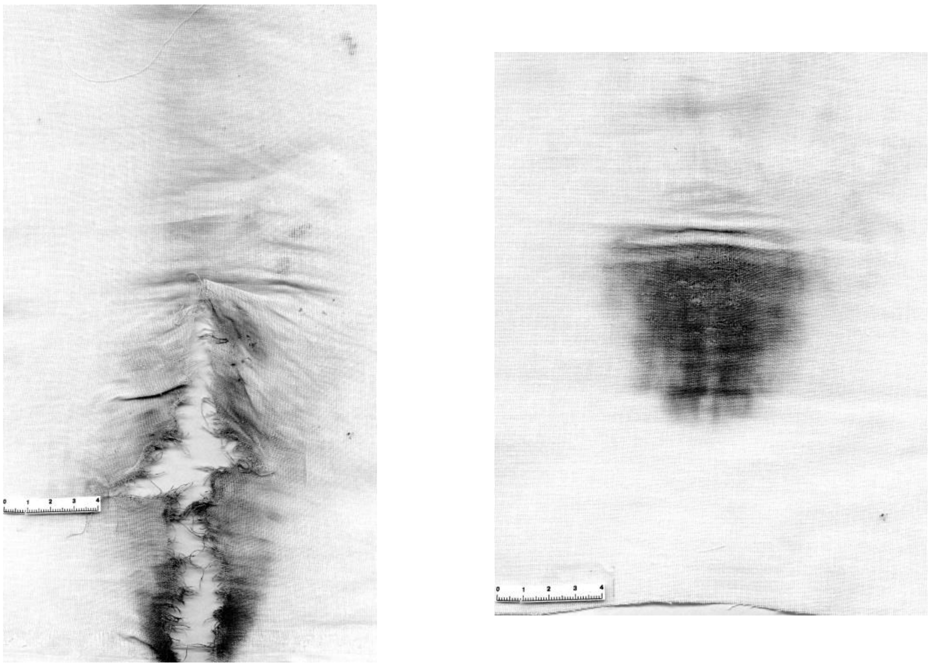

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[illegible] 67.521.4
[illegible] 343.983.2
DOI 10.25724/VAMVD.ISTU

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L. S. Gvozdkova,
Senior Expert of the Saratov Region Expert-Criminalistic Center
of the Ministry of Interior of Russia

FORENSIC INVESTIGATION OF MICRORELIEF OF HUNTER'S CARTRIDGES CASES SUBJECTED TO RELOADING

The expert examination of traces on the reloaded cases deals with studying the traditional set of morphological characteristics – characteristics of the external structure of the trace-forming parts.

Morphological properties of all reloading equipment used concerns the construction and peculiarities of its working parts structure, the traces of those parts being steadily imprinted on the reloaded cases.

During the process of reloading there takes place the contact interaction between the trace-receiving surface of the case and trace-forming ones of the shell-holder, die cavity, bushing.

The tasks of the examination are:

– determining regularities of trace imprinting on the microrelief of cases, the traces being formed by the reloading mechanisms;

– fixation and localization of these traces;

– analyzing the degree of their unchageability and stability of the process of imprinting the traces of the productive mechanisms used.

Morphologic features of mechanical machinery treatment are seen as deformations (scratches and compression marks) on the surface of cases. When examined these traces one can distinguish the characteristics mirroring the construction, sizes and structure peculiarities of the reloading equipment working surface microrelief.

Thus, regularity of traces display on the reloaded cases is shown through the fact that the reloading equipment facilities earlier occupying predetermined and stable position relative to the reloaded case leave the traces of clear localization on the case surface (on the flange, body, incline, neck). They (the traces of reloading) point to the homemade technique of making cartridges, the examined reloaded cases being their parts.

Key words: cartridge, shell, reloading, press, matrix, mark.

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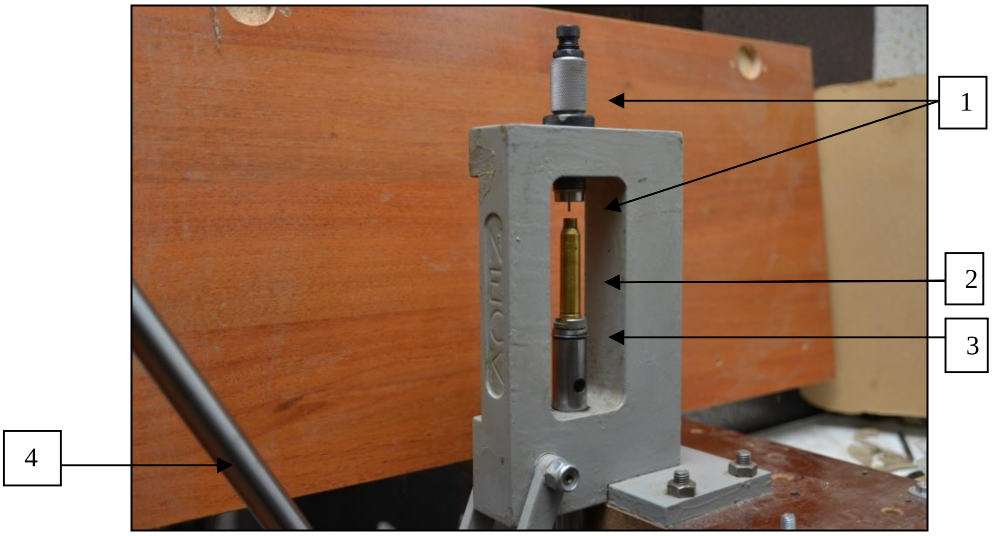

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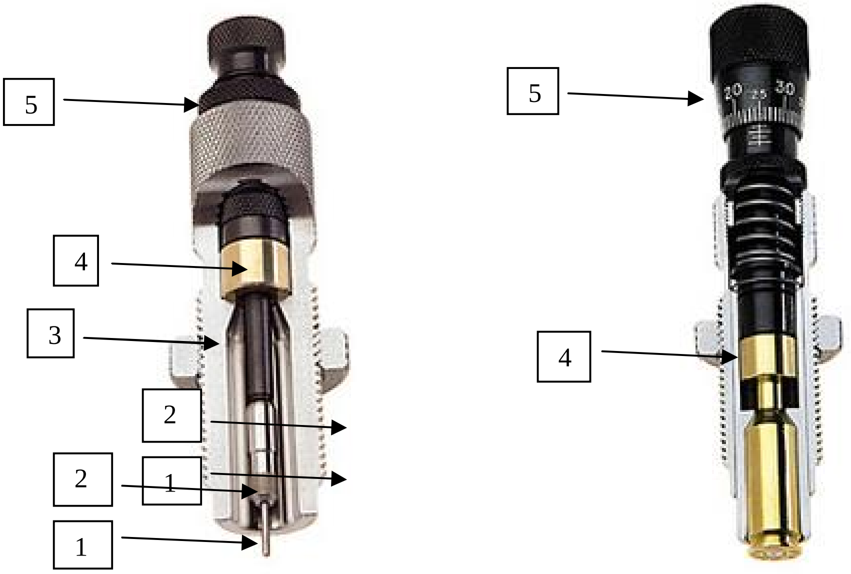

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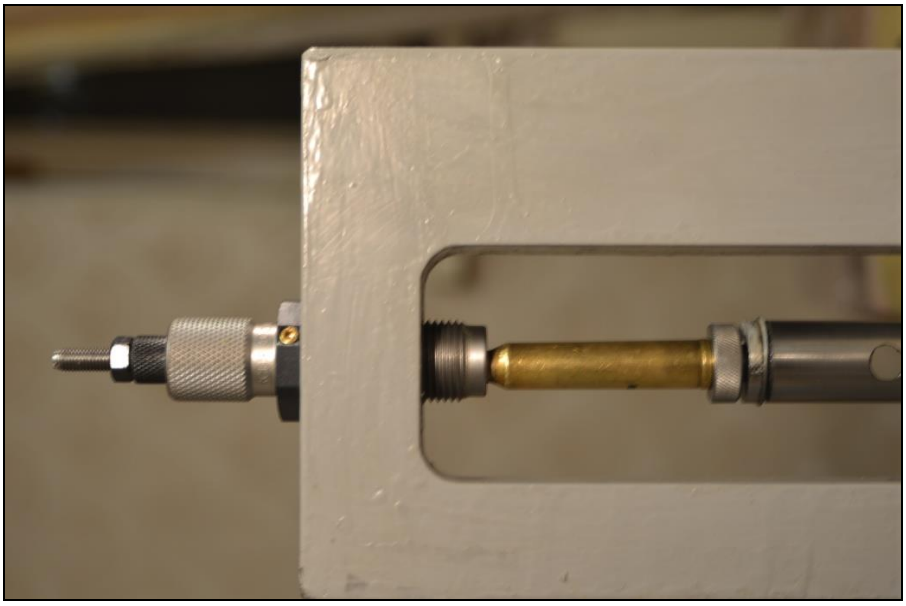

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- [illegible] ([illegible] 6);
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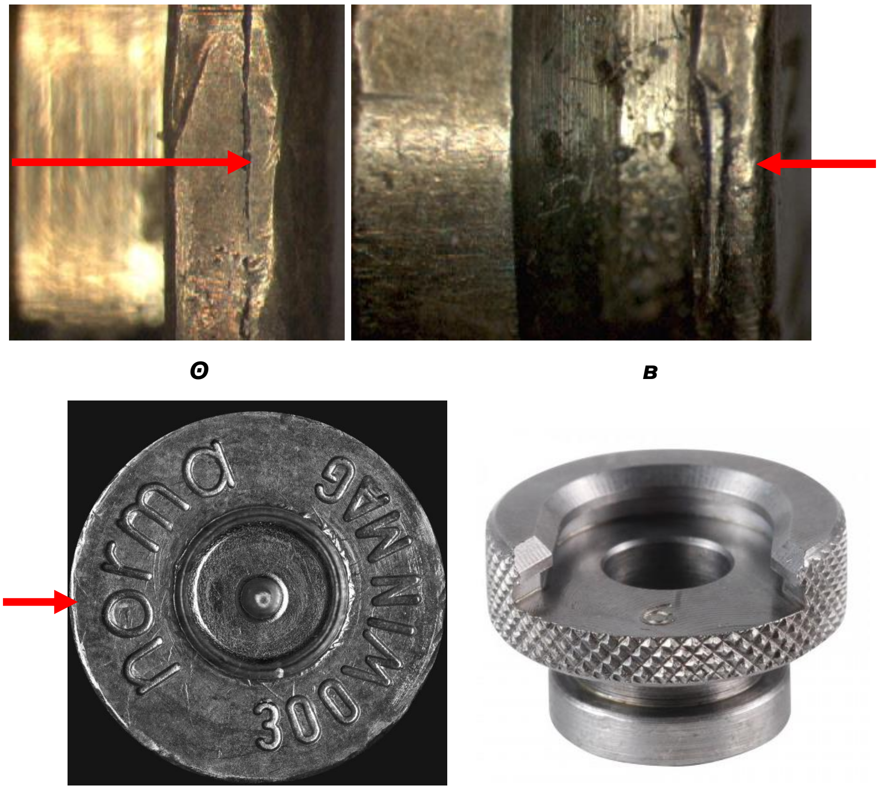

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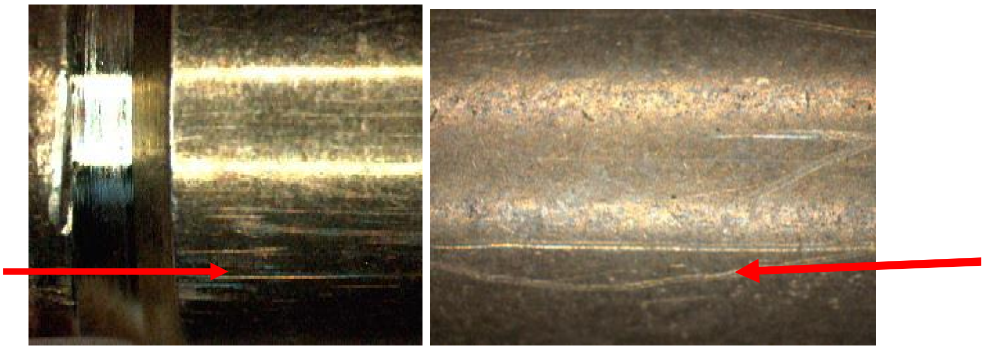
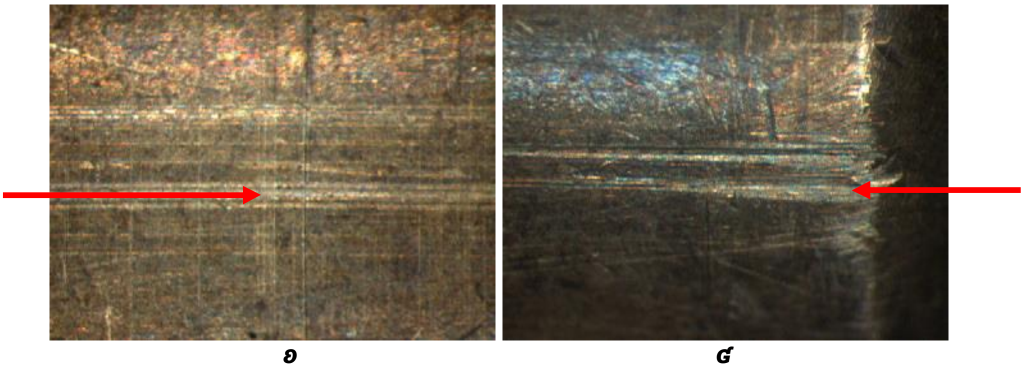
ʧʦʜ ә ʝ ʦɕ ʰ ɋʭſɱ ʷ ɖʒʥʦʦʕʦʘʦʥʦʥʒ ʧ ɉ ʦɕ ɉ ſɱʥʘʦʷʞ ɉ ʥʯ ʶ , ɠ ï ʰ ɉ ʥʥʑʦʦʜɉʦ, ʦʙʦʘʟʦә ʘә ʰ ɋʡ
ɺ ʃɕʃ ſɱɖʓ ʜ ʴ ; ſɲʦɕɉʥʑʦʡ ʕʦʘſɱʥʦʦ ʯә ɉʃʘ ʦʃʥʒʝ ʯɉʥ ʥʝʧ ʦʘәɕʃʥ ʥʦʡ ʬ ʦʦɕʒ әʥʒ ʷ ʃɕʃʥ ,
ʭʘʦʘʕʃɉʦʥ ɉ ʜʥ ʷ ʧ ɉ ʦɕ ɉ ſɱʥʘʦ ʷ ʞ ɉ ʥʯ ʷ

2. ʆ ɋʕʦʦʦɕɉʥ ɉ ʬ ʥʘ ʕʦʦʧɮſɲɉ ɕɋʥ ʟ: ſɱɖʓ ʜ ʴ , ʦʙʦʘʟʦәʘʥʥ ɉ ʬ ʦʦɕʒʦәʦʯʥʡ ɖʒʘʃʦɕʃʯɉʡ ʬ ɮʥʥʥſɲʘʡʟ ә ʧʦʦʯɉſɲɲɉ ʧ ɉ ʦɕ ɉ ſɱʥʘʦ ʷ ʞ ɉ ʥʯ ʷ (ʦɕſɱ 5).





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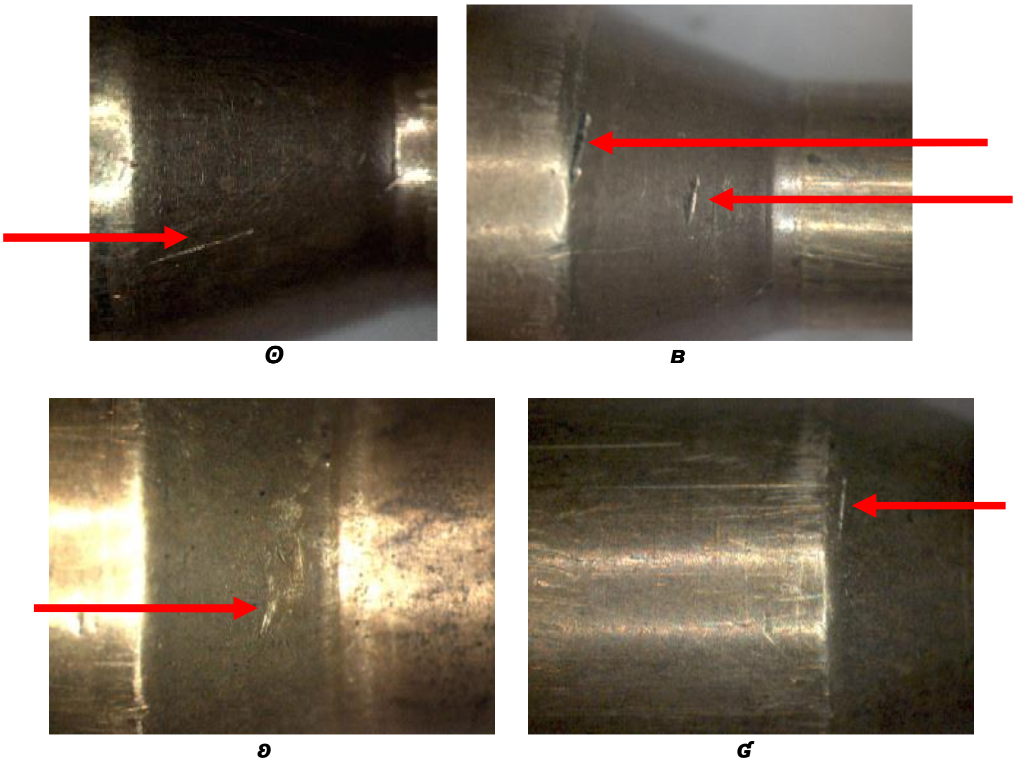

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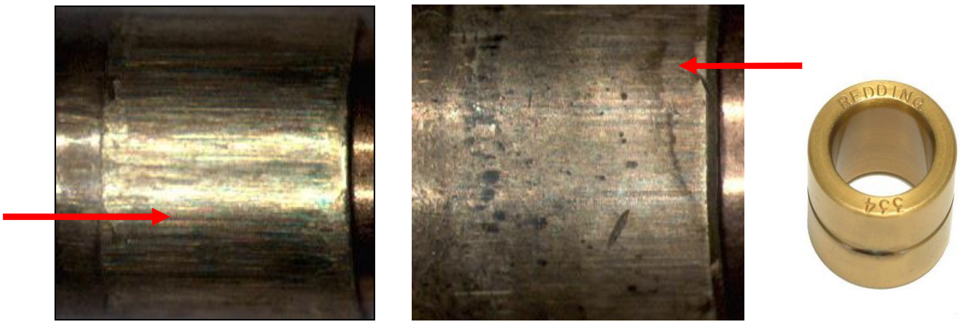

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1. [illegible] 13 [illegible] 1996 [illegible] 150-[illegible]. [illegible] «[illegible]».

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[illegible] 67.533
[illegible] 343.983.7
DOI 10.25724/VAMVD.ITUV

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STATE-OF-THE-ART CAPABILITY AND OPPORTUNITY OF THE RESEARCH OF THE HUMAN HAIR AND ANIMAL FUR

In spite of state-of-the-art capability and opportunity of the research of the human and animal hair are the current trends of the forensic biological examination, these very objects of study are underestimated by them who get over to that accident site.

Lower output of the exclusion of hair and fur may result in loss of important information for the investigation.

In this very article we situate the experiences in the field of research of different kinds of animal fur, problems of digital classifications of pigment and background of cortical layer, the possibility of the research of the humanʼs nuclear DNA which is deprived hair bulbs. Russian and foreign literature sources were analysed. Promising avenues of the research of the human and animal hair are determined: the scientific research aims to the comparative study of the cow and different breeds of dogs arthropods; the development of aligned methodology how to determine the color of the morphological characters; an assessment of the feasibility of the study of the nuclear DNA in the scapus pili. This very information can give us a broader perspective about the possibilities of forensic analysis of hair and is very relevant for detectives and biological experts.

Key words: the forensic biological examination of hair, research of the human and animal hair, perspective of quantitative assessment of hairʼs color, research of the humanʼs nuclear DNA.

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18. [illegible] 2019. [illegible] 5. № 15 ([illegible]). [illegible] 143–144.

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[illegible] 343.982.33
DOI 10.25724/VAMVD.IUVW

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I. V. Kharchenko,
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Candidate of Sciences (Biological);

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THE EFFECTIVENESS OF DNA ANALYSIS IN CLEARANCE AND INVESTIGATION OF CRIMES

The article focuses on the main problems exerting influence on the effectiveness of forensic genetic examination (DNA analysis) aimed at solving and investigating grave and especially grave crimes, in particular against the person. The authors analyze problems to be solved while conducting examinations of this type and represent the main provisions of examination of this category. They show advantages of the method of DNA analysis in comparison with other types of identification examinations.

On the basis of statistical data about genomic information coming into the federal data base for the last 4 years the authors analyze the influence of the change in crime structure and quantitative characteristics of collecting objects of biological origin from the scene of an accident on clearance of violent crimes through the method of DNA analysis. The authors propose a number of measures to develop laboratories of forensic genetic examination which will help improve the results of expert-criminalistic support for the activities related to clearance and investigation of violent crimes at the present stage.

Key words: personal identification, forensic genetic examination, DNA analysis, clearance and investigation of crimes, biological traces, genomic recording, genetic profile, violent crimes, scene of an accident, forensic identification, expert-criminalistic records.

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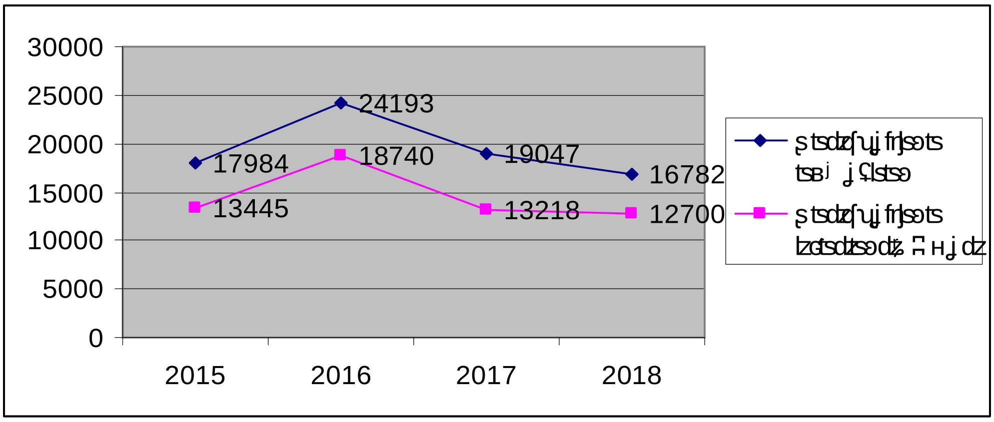

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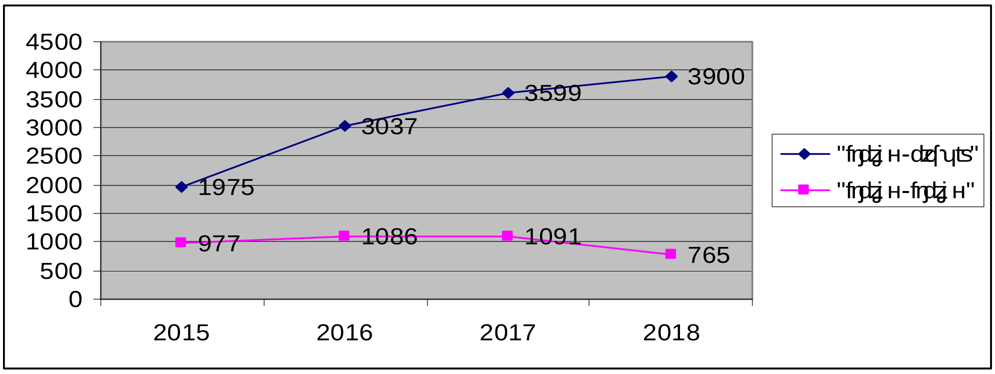

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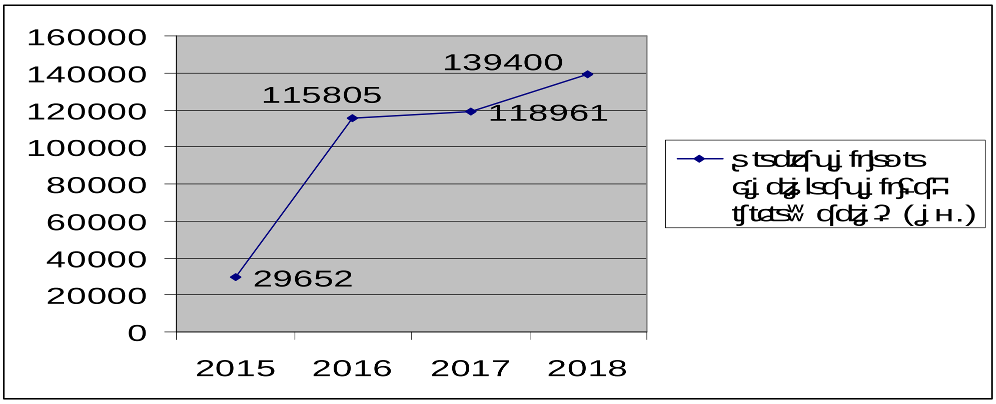

Рис. 3. [illegible]

Таблица 1

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2.	[illegible]	27 265	19 090	360
3.	[illegible]	17 461	11 413	125
4.	[illegible]	11 845	6 745	66
5.	[illegible]	3 472	3 235	37
6.	[illegible]	44 085	25 379	319
7.	[illegible]	24 351	12 879	122
8.	[illegible]	43 364	26 415	479
9.	[illegible]	16 912	8 991	82
	[illegible]	189 765	115 157	1 680

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6. [illegible] 3 [illegible] 2008 [illegible] 242-[illegible] «[illegible]».

7. [illegible] 2008. [illegible] 11. [illegible] 41–46.

8. [illegible] «[illegible] 2»: [illegible] 23 [illegible] 2017 [illegible] 882. [illegible] «[illegible]».

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[illegible] 343.148.6
DOI 10.25724/VAMVD.IVWX

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CRIMINALISTIC RESEARCH OF TRACES OF THE EMERGENCY MODE OF OPERATION OF THE CIGARETTE LIGHTER WHEN THE FIRE INVESTIGATION VEHICLES

The qualified establishment of the fire source and the ignition source during the inspection of the scene and the production of judicial fire-technical expertise on the fact of ignition of the vehicle is complicated by the compactness of its components and units, as well as the loss of a significant amount of forensic information as a result of possible movement of the vehicle from the scene until the arrival of the investigator or investigator.

One of the most common causes of ignition of vehicles is the emergency operation of the electrical system, especially its elements, unprotected by fuses and under voltage when the ignition is switched off. Often, an emergency mode and fire leads to a violation of the driver's rules of operation of electrical equipment of the vehicle. In article on an example of research of the Hyundai Solaris car the order of check of the version of ignition of the vehicle from the thermal processes caused by the emergency mode of operation of the electric cigarette lighter at mechanical blocking of its button in the pressed position is considered.

Key words: fire-technical expertise, fire, car, fire cause, the examination of the crime scene.

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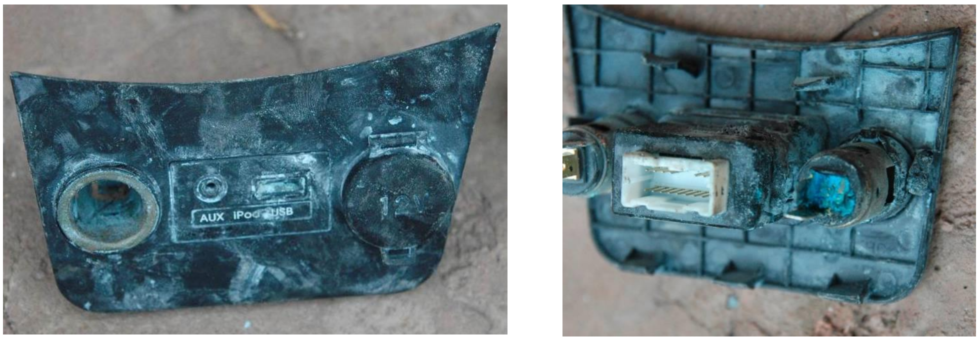

[illegible] 3. [illegible]

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CRIMINALISTIC STUDY OF VARNISH AND PAINT COATINGS IN THE INVESTIGATION OF CRIMES CONNECTED WITH CHANGE OF MARKING VARIABLES OF VEHICLES

In this article, on the basis of the analysis of the special literature and the study of autotechnical and physicochemical examinations, the forensic investigation of paint and varnish coatings is considered when investigating crimes related to the change of vehicle markings. Some issues of solving specific forensic, technological, physicochemical, and other tasks (using the full range of modern techniques) that constitute the practical feature of forensic materials research are touched upon. It is determined that the examination of vehicle coatings is often part of a comprehensive examination (for example, in conjunction with autotechnical).

The possibilities of modern infrared microscopes, which provide an expert with the study and analysis of microparticles using an integrated approach and current techniques, are presented. At the final stage, the main stages of a preliminary study of vehicle coatings are considered, where special attention is paid to a non-destructive method ï luminescent microscopic analysis. It was concluded that the study of vehicle coatings should be carried out according to improved methods, well-proven and successfully tested in the leading forensic departments of the Russian Federation. This approach will guarantee comprehensive research, scientific validity and objectivity of the conclusions.

Key words: forensic investigation, examination of paint and varnish coatings, marking designations, vehicles, a preliminary study, forensic examination, microscopic examination, luminescent microscopic analysis.

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