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REPORTS OF FORENSIC EXAMINATIONS AS SOURCE OF EVIDENCE FOR INVESTIGATION OF FRAUDS

The purpose of this article is to study the structure and content of the expert, as well as their importance in the investigation of a fraud.

The structure of the expert determines its content regulated by the Criminal Procedure Code of Ukraine and subordinate regulatory acts.

Investigator assesses expert opinion in terms of indicative or probative value of search. However, it does not have proper amount of relevant knowledge sufficient to assess the accuracy and quality of the research, methods used and so on.

It in the case turns out to have the entire document as a whole, i.e. all of the listed expert opinion it obtained information and expert in the study of actual data according to the issues raised. That interim conclusions and intermediate data itself may not be evidence apart from the procedural drawn conclusion.

One of the most contentious issues discussed in expert investigative practices during the investigation of fraud and is completeness and the information set out in the second expert opinion. Given the fact that there are swindlers among individuals with high intellectual level of information specific content, which is in the experimental part of the expert, they can be used in subsequent criminal purposes.

In general, in order to investigator and the court had an opportunity to fully provide the expert evaluation, they must have general knowledge in the field of forensic examination. However, only forensic experts, based on scientific, technical or other specialized knowledge can fully define and apply the necessary techniques and research methods, correctly identify and assess signs and formulate conclusions. The use of investigative or court procedural and non-procedural forms use specialized knowledge (such as advice, interviewing experts, the presence during the assessment) will help to assess the expert opinion and use it as a source of evidence, and the evidence that is in it - as evidence.

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REMOVAL OF TISSUE SAMPLES AND ORGANS OR PARTS OF THE BODY NECESSARY FOR CONDUCTING EXPERT STUDIES IN CRIMINAL PROCEEDINGS OF UKRAINE

The effectiveness of the investigation of criminal offenses depends on the excellence of law, clear and understandable settlement in the current Criminal Procedure Code of Ukraine procedural decisions. This provision fully covers the procedural action such as inspection troupe associated with exhumations. Analysis of article 239 of Criminal Code of Ukraine states that the result of this action is also provided to obtain samples for expert research. However, this rule Procedure Act does not fully meet standards other PDA Ukraine. In particular, there are at least two questions on the grounds and procedure for removal of samples. Obstacle to implement these goals may be the lack of CPC of Ukraine, laws and regulations clearly defined the manner regulated to the issue of the appointment and the exhumation of the corpse and seizure tissue samples and organs or parts of the body needed to expert studies. This may result in obtaining evidence, the admissibility of which raise a fundamental question.

Lawmaker distinguishes between the issue of taking samples from things, documents and people (with their permission). Meanwhile Code of Ukraine does not provide answers to questions or Vienna with exhumed corpse to one of these categories, as well as does not define the term "thing" and "person", whose interpretation is required to clarify this issue.

The results of the analysis of the concept of things listed in different sources, leads to the conclusion that t RUP can be attributed to things only in the philosophical

aspect, thus realizing a particular object of the material world, but this assignment does not have any criminal proceedings procedural matter.

Of course, no corpse belongs to documents.

With the onset of death and the person loses features inherent in living persons, as ceases to be a member of society and not fulfilling its social functions. So, despite the fact that the third paragraph of Article 245 of Code of Ukraine does not specify in which one person (living or dead) biological samples are selected, a corpse cannot be attributed to the category of persons whose conduct these proceedings.

Consequently, the corpse does not belong to any of the categories (thing, document, and person) for which parts two and three centuries. 245 CPC of Ukraine provides differentiated procedural order to obtain samples for examination.

Given the above, it is appropriate to supplement Art. 245 Code of Ukraine, concerning obtaining samples for examination, a new part as follows:

"The procedure of extracting tissue samples and organs or parts of the body necessary for conducting expert studies, established under the provisions of the examination of the corpse, associated with exhumation (Art. 239)".

Deserves special attention the issue on legal grounds extract tissue samples and organs or parts of the body.

After the ruling of the prosecutor to introduce exhume the corpse of her close relatives or family members who have put in writing in their decisions, whether they have objections to the exhumation. In the absence of consent or counteract the exhumation of the corpse, seized samples of tissues and organs or parts of the body should contact the investigating judge with a request agreed with the prosecutor. For this purpose it is necessary to complement article 239 CPC of Ukraine with the provisions as follows:

"On exhume the corpse be notified close relatives or family members. If they object to the exhumation of the corpse, permission to conduct an investigating judge granted the request of the investigator agreed with the prosecutor in the manner envisaged by part three - fifth century. 234 of the Code. Close relatives or family members can be present at the exhumation of the corpse by the decision of the investigator and only with their consent. "

Consideration of the proposals will promote normative regulation of the exhumation of the corpse, its inspection and removal if necessary tissue samples and organs or parts of the body needed to expert studies.

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CRIMINOLOGICAL PROFILE OF COUNTERMEASURES AGAINST VISUAL OBSERVATION OF PERSONS DURING THE PRELIMINARY INVESTIGATION

Today, science is no clear understanding of the contents of its investigation and combating structural elements.

Problem of countermeasures against pre-trial investigation should be considered as activities of crime and other stakeholders to create interference with the investigations and operational units authorized to establish the truth in criminal proceedings.

The article is to determine the characteristics of the pre-trial investigation in combating obstruction of tacit conduct investigative (detective) of action under Art. 269 of Criminal Procedure Code of Ukraine "Visual observation of a person, place or thing."

Means of combating visual observation are numerous.

Some objects generally do not try to prevent surveillance or to detect it. Not being involved in illegal activities, such persons do not resort to measures of secrecy.

Countering video surveillance is exercised both individually and in groups with a clear division of roles. Initially counterintelligence measures aimed at identifying surveillance. If they expose the surveillance, the objects point their actions to its termination or neutralization. This resistance surveillance at all stages can have both latent and open.

However, during the conducting of video surveillance not always reveal counter-surveillance professionally organized by criminals.

Information "revolution" is happening in the world over the last decade has led to the spread of knowledge among the population of Ukraine tacit forms and methods of law enforcement. In particular, the organization and tactics CCTV today you can find detailed information on the Internet. They also described in detail in the literature. Features demonstrate the use of video surveillance in the detective series and TV programs.

Overall for efficient visual observation of the object it is always necessary to consider the possibility of opposition from his side. This opposition can be classified:

- The number of persons involved - individual and group as well;
- In stages - detection and suppression;
- The level of secrecy - Clear and well hidden.

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FORENSIC ASPECTS OF INVESTIGATION OF COUNTERFEITING OF DRUGS AND OF CIRCULATION OF COUNTERFEIT DRUGS IN MODERN CONDITIONS OF ADAPTATION OF UKRAINIAN LEGISLATION TO EUROPEAN UNION STANDARDS

Bringing national legislation to European standards is one of the major problems of our country. C hey process cannot avoid the areas and protect public health, including medical drugs and monitoring their quality.

Today, most counterfeiters avoid responsibility and, therefore, improve public policy in the falsification of medicines, the ways of strengthening the state legal combating these phenomena is rather important.

The article is to study the issue of falsification of medicinal products and trafficking of counterfeit medicines in terms of adaptation of Ukrainian legislation to the European Union.

Today the pharmaceutical sector activities regulated by the Law of Ukraine of 1996 "On Medicines", aimed at ensuring public access to effective and quality medicines, providing timely and objective information available about them.

The European Union regulates the scope of this abundance of regulations, all of which can be used as a positive experience of legal regulation.

Harmonisation of the national legal framework circulation of drugs and medical products to the European Union provides:

- The development of the European model of import licensing of medical products in Ukraine;
- Introduction of the automated system of medical drugs by applying individual markings on the packaging;
- The development of a market surveillance system in the sphere of medical devices;
- Introduction of criminal liability for falsification and trafficking of drugs.

Also on the legislative level fixed rules on registration in Ukraine only those medicines whose production meets GMP (import drugs whose production does not meet these standards, banned from 02/15/2013).

November 20, 2012 came into force the Law of Ukraine of 16.10.2012 № 5441-VI «On Ukraine's accession to the Convention on the Elaboration of a European Pharmacopoeia amended in accordance with the provisions of the Protocol." Since then Ukraine gained full membership (becoming the 38th member) of the European Commission of pharmacopeia with the voting right.

Ukraine became the first state to ratify the Council of Europe Convention on Action against falsification of medical products and similar crimes that threaten public health (Medicrime Convention), and the first country in the former Soviet Union, which introduced criminal liability for falsification of medicines

Adjusting of national legislation of Ukraine in line with European standards is a complex, multifaceted process. At the other is not limited to direct amendments to national laws or creating new documents. Very important components of this process are the implementation and enforcement of legislation approximated, without which it is purely formal.

Despite some steps that Ukraine has made over the past two years towards strengthening control over pharmaceutical sphere, no tangible results. Statistics only shows the economic basis - increased demand and selling drugs. However, while there was no statistics on the introduction of criminal responsibility for falsification and trafficking of drugs. Without proper funding most accepted norms are declarative and not implemented in daily activities.

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MOTIVES OF PERSON'S ACTIONS AS A COMPONENT OF FORENSIC CHARACTERISTIC OF A CRIME

The purpose of articles is analysis positions scientists of availability motives Action offender as element and in stock forensic Specifications some species acts and definition conditions, by who such availability may be recognized appropriate.

Researchers define motive as mental experience, what urges man and determines choice it Action. An important is question of as far as this motive able I appear outside and characterize some features man what may be used in interest of investigation.

On view of scientists deeds corresponding to certain motives, their nature, trace painting, subject encroachment, victim allow put forward assumption about interests need criminal, which in their turn can be related with him affiliation to some gender, age, Professional groups and so on.

Researchers do not comment on motives in stock forensic Specifications crimes but point on series related with them circumstances deed (traces method, subject encroachment, personality of offender etc.). These circumstance scientists usually submit as items to said research category.

So opinions of scientists can indirectly serve confirmation possibilities Making motive to structure forensic Specifications crimes which using for building versions in the process of investigation.

Based on positions scientists, it is possible state, what with reviews on officer feature forensic Specifications motives Action persons (As element in her stock) have to represent yourself generalized data about Different views motivation business at committing crimes certain species. IN criminal Law described series acts where motive a priori is more clear and defined (For example, selfish - at doing of encroachment against property bullying - at violation Public Agenda etc.). Together with by forming forensic Specifications crimes at committing whose in criminals almost do not have simultaneously units or oh Amount motives to Action scientists not with able reveal Correlation relations between hereby element forensic Specifications (motives Action the offender) and other her elements.

Complexity definition motive in actions some Rights may be will result in Aisne availability simultaneously several their varieties or gradual transition from single motivation to another. Oh Din and that very motive may generate great by shape and contents behavior and depending from this differently I evaluated. Immediate motivation action mainly reveals only of him social and psychological sources (example, murder on ground Revenge may be caused rage with jealousy, revenge, etc.)

As result trace noted what motives Action offender necessary explore in stock forensic characteristics some species crimes.

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**INSTITUTE OF INTELLECTUAL PROPERTY: THEORETICAL AND
LEGAL DESCRIPTION**

Components of intellectual property rights, as you know, is on industrial property rights, copyright and related rights. The definition of these legal categories, their relationship and the purpose of this study.

Authorship law regulates social relations in the creation of works of science, literature and art. It and unlike the definition of industrial property relating to material production, works of literature, science and art are intangible products. The object of copyright is an integral part of the process.

According to the authors of works created (i.e. an intangible product) legislated moral and property rights

However, copyright and rights of authors of works of science, literature and art, there are other rights that are protected by law - and so-called related rights, namely the rights of those who work to help the author (if the author intended for distribution to the general public). An essential feature of the majority of related rights is their dependence on human creators.

According to the analysis, the most common infringements of copyright and related rights are:

- production and distribution of pirated works, audio-visual works and phonograms;
- duplication and distribution of unlicensed computer software;
- manufacture, export, import of disks for laser reading systems.

It is clear that the right to intellectual property rights are real only if providing them with the suppression of offenses against them.

According to some scientists in Ukraine there are two forms of intellectual property protection, and jurisdictional and non- jurisdictional.

The greatest practical importance is, of course, jurisdictional form of protection:

- claims to court (general jurisdiction, economic and administrative);
- administrative responsibility;
- criminal prosecution of copyright and related rights.

Ways to protect intellectual property rights are divided into:

- administrative and legal;

- civil;
- criminal liability for infringement.

But scientists believe that the concept of "protection of rights" is part of the more comprehensive concept of "protection law". However, protection is a complementary method of influence on social relations, which is used only for redress, after which he transformed into a guard.

Generalizing category, able to convey limit (subject) of the study as complex administrative (organizational and management) and legal aspects of intellectual property, and probably is the concept of "software" components which should consider the concept of "security", "protection" and "regulation".

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PROBLEMS OF APPLICATION OF EXPERTIZE FOR INVESTIGATION OF ENVIRONMENTAL CRIMES UNDER NEW CRIMINAL PROCEDURE CODE OF UKRAINE

In the perfection of environmental crime investigation methods, which tends to increase, is now the most pressing problems of law enforcement in Ukraine.

One of the factors that reduce the effectiveness of detection, investigation and prevention of environmental violations is insufficient use of specialized knowledge during the preliminary investigation, I and the first trial.

The article is to determine the features and manner of use of special knowledge during the preliminary investigation I first crimes against the environment, including through forensic environmental assessment, in terms of the new Criminal Procedure Code of Ukraine.

Investigators in course of the criminal proceedings on the crimes against the environment, faced with the need to use special knowledge in at least two areas: technics and ecology.

Application of expertise in the field of ecology caused by the need to conduct forensic examinations and second Environmentally friendly, through which You can not only set the amount of the negative consequences for the environment, but also to identify possible causes and consequences of committed offenses.

Forensic examination of environmental prescribed in the investigation of criminal proceedings for criminal environmental law for centuries. 236 - 254 Criminal Code of Ukraine (crimes against the environment) and some other articles of this Code.

The most successful have such a classification:

- Ecological expertise (legal and environmental engineering, ecology and soil science, environmental and biological, Radioecology, Hydroecological expertise);
- Technical expertise;
- Forensic examinations.

Depending on the type of examination the investigator determines institution which instructs its implementation.

As shown by investigative practices, Mr. Eid investigating crimes against the environment, I almost always investigator (in 98% of cases) involves specialist to review in the event that contributes to linking mechanism of formation of traces receiving of material for further forensic environmental expertise.

In spite of the relatively good regulations on the use of forensic environmental assessment, now goes on the process of formation and development of its theoretical and practical foundations.

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PROCEDURAL ORDER OF APPOINTING OF FORENSIC EXAMINERS FOR THE DEFENSE IN CRIMINAL PROCEEDINGS

Objective of this article is to analyze the current legislation of Ukraine governing procedural order to attract the expert of the defense, and the formulation of proposals to address the existing theoretical and practical problems.

For many years scientists have repeatedly stressed the need for the empowerment of defense counsel in criminal proceedings.

Adoption of 13 April 2012 the new Code of Ukraine marked the introduction of a number of new criminal proceedings for domestic norms, institutions and procedures, largely aimed at further strengthening adversarial criminal proceedings.

According to the first paragraph of Art. 47 of CPC of Ukraine defender must use protective equipment, including collecting evidence using specialized knowledge of experts, whose findings are procedural source of evidence. This will ensure one's respect for the rights, freedoms and legal interests of the suspect, accused and help you to find out circumstances and that refuted the suspicion or charge, or soften and excluding criminal responsibility of the suspect, the accused.

Toronto C can protect yourself (without reference to the investigator, prosecutor, investigating judge) to get an expert opinion on the issues that require special knowledge, continue to file its pre-trial investigation body or the court to justify its legal position.

These innovations are quite appropriate, because the parties intended to eliminate inequality in which expert opinion had probative value only if the expert appointed decision of the investigator, prosecutor or court's ruling.

However, the new Code of Ukraine undefined form side implementation of the right to an independent expert involvement. Also it is not clear that the document in

this case would be the basis for the examination, assignment, application, attorney request or other document that should contain information about a person, which attracted as an expert, questions to put to the expert, the list of materials (samples about ' Object s research documents) that provide for the study, and so on.

It should also be borne in mind that in certain cases for the examination of the defense must provide expert samples for comparative studies, certain objects, documents and more. Often originals of documents and items needed for research are the materials of the criminal proceedings and are recognized as pre-trial investigation material evidence. Accordingly, the defense was unable to provide the necessary samples for expert examination

That is, although the general rule samples for examination selects the side of the criminal proceedings, which applied for the examination or at the request of any expert appointed an investigating judge, however, if they are found in the materials of the preliminary investigation, it is clear that the investigator or prosecutor voluntarily give their side protection.

In this case, according to some scientists can be solved by addressing the defense to the investigating judge with a request temporary access to things and documents. These things and documents can be extracted from the criminal proceedings in the copies, and if that requires research - temporarily be removed and corresponding originals. Such a mechanism could easily be implemented and used in practice.

The issue of prevention of criminal expert in responsible remains uncertain and. If the prosecution is endowed with all the rights regarding prevention expert on criminal liability for providing false conclusion, etc., then the defense is not vested with such powers. This not only violates the principle of equality before the law but also the adversarial principle. To solve this problem could be, giving this feature investigating judge, putting on him the obligation in the event of an appeal by the defense request an examination make the appropriate decision, following all the requirements stipulated by law.

Issues involving experts on a contractual basis for the examination of the CCP Ukraine today is declarative and is only beginning to be implemented in the activities of forensic expert institutions of MIA of Ukraine.

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ORGANIZATIONAL AND TACTICAL FEATURES OF APPOINTMENT OF FORENSIC EXAMINATIONS FOR THE CASES OF HOOLIGANISM

The investigation of bullying as any other criminal offense also requires the use of specialized knowledge, one of the common forms of use of which is examination. As the experience of practice, without timely examination a large number of criminal proceedings suspended under preliminary investigation.

Legal expertise in the investigation of bullying can be given as out in early, and at a later stage of the investigation. According to statistics, most of the investigators administered the examination for a month after entering data in the Unified Register of pre-trial investigations. It is clear that this situation is high probability of loss of traces, increase in duration, and therefore reduces the effectiveness of pre-trial investigation.

Among expertise, the need for which arises in the investigation of bullying, the most common is and forensic examinations and, after committing hooliganism for each year of the second victim is related to beatings and of causing bodily harm.

Forensic examination of biological material evidence is conducted to establish the prescribed form of the substance (group and typical signs of blood, hair, saliva, semen, urine, etc.). However, according to a study of the criminal proceedings, this kind of examinations prescribed only 4% of cases.

Forensic psychiatric expert was appointed to determine the mental state of the suspect at the first year in the presence of data that cast doubt on his sanity.

Assign in the investigation of bullying and trasological expertise that solves diagnostic and identification questions.

Positive results (given that hooliganism, as a rule, does not worry about the destruction of finger on the spot) and provides a fingerprint.

Forensic ballistic examination was appointed during the investigation bully with TVA, during which was used firearms.

Importance for the investigation of bullying has expertise of explosives. The need is even pursuing it in cases not associated with causing bodily harm (e.g., in the case of fans during football matches different explosive or incendiary devices: fireworks, fire, etc.).

A special place in the investigation of bullying belongs to examination knives.

Forensic chemical examination administered if necessary to examine of the substance that was used hooligans (powders, paints, acids, alkalis, drugs, psychotropic substances and precursors).

Today forensic examination may appoint immediately after registration message offenses and therefore the investigator can reduce the time required for an examination, which is quite important.

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SPECIAL FEATURES OF APPOINTMENT OF COMPLEX FORENSIC IT AND FORENSIC ACCOUNTANCY EXAMINATIONS

At the present stage combat organized economic crime is often a need for forensic examination, which once used knowledge from several different branches of science, which is the essence of an integrated approach to research facilities.

No mystery is the fact that the development of computer technology also has negative aspects, including new opportunities for committing economic offenses which have far-reaching legal and economic consequences. The investigation of offenses in the sphere of economic activity is the need for new approaches to the study of the facts and circumstances related to the use of computer technology in their commission.

The development of such approaches requires the use of specialized knowledge in several fields of science, economics, finance, and accountancy and computer technology. Task that can be solved by complex examinations, their probative value, the depth of the study in no way comparable to similar factors during individual examinations. In particular, complex computer-technical and economic forensics in some cases can fully explore the material objects and materials of proceedings, to provide answers to questions that cannot be answered during the individual studies.

The object of study during complex computer-judicial technical and economic expertise is electronic media with information that is relevant to the economic and financial-economic activity of the enterprise, organization, institution or individual - entrepreneur.

P The results of the study, outlined in the conclusion of computer expertise, are the starting given to judicial economic expertise.

Development of guidance on the studies of economic information that is created processed and stored in various computer and information systems should include:

- Formulation of requirements for collection and preparation of research facilities;
- formulation of expert tasks that must be resolved during the comprehensive study;
- definition search tools and recording media expert computer expertise on the grounds set out by the person who appointed the examination or expert-economist;

- the use of new means of expert studies that for economic experts will automate the analysis methods and techniques of accounting and other economic information;

- detection methods, concealment, misrepresentation, conversion of economic information in electronic form, so-called "black cash desks" and the mechanism of their origin and method that enable law enforcement agencies to evaluate the data to qualify the offense;

- determination means to establish relationship identified defects (cause-effect relationship).

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PROBLEMS OF FORENSIC EXAMINATION OF COLD STEEL

Especially dangerous are criminal offenses against persons who commit using knives. Today it is the most widespread, accessible in the manufacture of a wide range of people, very concealment and unexpected applications.

The variety of species and types of knives, the specifics of design, shape, dimensions and other characteristics of each sample requiring special knowledge in the field of forensic assessment. These issues are usually solved using forensic knives.

Purpose of this article is a critical reflection of certain provisions of Research Methodology knives and structurally similar to its products and solution of problems regarding its application.

Definition of cold steel shown in this technique generally shows all the signs of the term provided throwing weapons exclusion from the list of knives or supplement its attributes that characterize its action.

Contradictory also a definition of "throwing knives" in terms of common set of forensic characteristics: suitability for repeated defeats the purpose (in the article are examples which leads to the conclusion that this allows you to get two legally and methodically faithful but opposite categorical conclusions as to the object of study) .

Correspondence of way of combining the elements of a certain object or device method involves technical security of its design goals to defeat a whole, ie its strength parameters should be sufficient for the intended use. However, in handicraft and homemade method of manufacturing elements of objects (devices) possibility to connect to each other in any way that ensures its intended use.

Certain inconsistencies in the method are related technical and forensic s requirements bladed knives.

Subjective is the process of research and uncertainty of the term "minor differences".

In addition, the method does not involve the study subjects who have medium length blade.

Certain ambiguities in the existing definition of dynamic tests in b s, because at of the conditions of which their strength is the maximum deposition of piercing and strikes. However, persons who carry out such studies may be of different sex have different physical training and health at the time of testing.

Not devoid of problematic issues and contradictions to the methodology and applications.

It is clear that the presence of certain current Methodology inaccuracies and contradictions requires research to further its improvements.

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SPECIAL FEATURES OF PREPARATION OF OBJECTS OF FORENSIC EXAMINATIONS TO ESTABLISH THE FACT OF UNLAWFUL USE OF TRADEMARKS FOR GOODS AND SERVICES

Among the violations of intellectual property not place occupied violation of the rights of economic entities to marks for goods and services that are the objects of intellectual property rights.

One of the important preconditions for ensuring full and comprehensive disclosure and investigation of crimes related to illegal use of trademarks for goods and services is the use of special knowledge. Only Exactly thanks to the expert can establish the truth in criminal proceedings that category.

At this time, the study of intellectual property such as trademarks for goods and services carried out in units of MIA of Ukraine expert persons with higher education in the field of intellectual property and the Interior Ministry received a certificate of qualification Ukraine forensic expert with the right to conduct this type of research.

The decision on the appointment and examination in proceedings related to illegal use of trademarks for goods and services requires the investigator in addition to general forensic and procedural knowledge, awareness of the specifics of the subject and object of study. Only under such conditions will investigator for the study to collect the necessary materials to correctly formulate questions and assess qualified expert opinions.

For the expert study except objects (seized products coated symbol) should submit the following materials:

- Interrogation protocol of the victim (the owner of the rights to the trademark for goods and services);
- Certificate holder of the registration of a trademark for goods and services, the license agreement (if any) on the transfer of rights to use the mark for goods and services;
- The interrogation of a person who illegally used someone else's trademark for goods and services;

Proper design of such materials will not only conduct research, but also contribute to solving other issues (the availability of the crime, identify the conditions that contributed to it, the degree of guilt of certain persons, etc.).

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TECHNICAL AND FORENSIC SUPPORT OF INVESTIGATION OF CRIMES RELATED TO ABUSE OF STATE SYMBOLS (INFORMATIONAL ASPECTS)

An objective investigation of crimes related to the abuse of state symbols, establishing all the circumstances of the incident and bring the guilt of suspects is impossible without evidence-based information obtained through the application of forensic methods and tools.

Within this category of criminal proceedings often withdraw forensic objects that are traditionally sent to the fingerprint, handwriting, trasological and video phonoscope assessment, forensic investigation of materials, substances and products, other expert studies.

During the criminal proceedings, depending on the investigation of the situation so used forensic tools to search for such material carriers of information about a crime:

- Guns (tools, flammable and corrosive liquids, spray dyes, etc.);
- Microscopic (micro particles coatings, fibers from clothing fabrics, etc.);
- Micro traces (scratches, layers of metal);
- Trace information, video and audio information on the long-term carriers;
- Information in the databases distributed computer networks.

For information support investigation of such crimes should be sought and delete the following sources of information:

- Materials with video cameras security systems of administrative buildings and facilities of private persons;
- Materials of video recorders vehicles of private persons;
- Video material from camcorders television operators, captured during the official broadcast events;
- Video on mobile phones, tablets with records of abuse of state symbols stored in a residence (work) suspects their relatives and other members of the criminal group;
- Materials online sites opposition parties, movements and radical youth organizations with possible appeals of persons involved in the crime;
- Records of telephone negotiations with the persons involved in the crime, the time and data of incoming and outgoing calls, subscriber's location in the relevant hundredths network that recorded on the servers of mobile operators;
- Materials operative filming events conducted by employees of the Interior Ministry of Ukraine and the Security Service of Ukraine, where similar attempt recorded desecration of state symbols and more.

The feature so forensic software investigate the above offenses is that in the course of the investigation (in particular during the inspection of the scene, search or seizure) specialist may not always ensure the completeness of removal media, to provide a preliminary assessment informative considerable remote software and hardware, take steps to maximize the preservation of trace information.

In particular, in the case of materials and extract audio and video, computer programs, information contained on the servers of mobile and private network facilities, there is a need for special equipment, the involvement of the relevant specialized experts. After just one use specialized software and hardware systems for search and seizure during the investigation information objects can greatly enhance the ability of providing technical and forensic investigation of crimes related to the abuse of state symbols.

SPECIAL FEATURES OF APPRECIATION OF GOODS AND DETERMINATION OF THEIR MARKET VALUE

At the present stage of social development has increased significantly in attracting experts in the field of merchandise, namely forensic merchandising expertise. Thus the main task of the expert commodity is to establish the value of various goods and services, taking into account all the factors that influence their consumer characteristics. Variety of goods in modern conditions of market relations complicates this task and needs research involving both scientists and practitioners in this direction.

In accordance with the requirements of regulations evaluate products at market prices on the basis of their actual condition (presentation). Products, consumer properties which meet the requirements of applicable regulations and legislation should be assessed at market prices, i.e. at market value.

Selecting basis of valuation of goods depends on the purpose for which it carried out the examination, its features, and regulatory requirements. Methods of peer review that are used in determining the market value of the assessment on the use of a comparative approach should be based on an analysis of sales prices (offer) on a similar product.

The market value is determined on the valuation date on the basis of market prices.

In general, independent assessment of property (including goods) is carried out in the following order:

- Contract for the evaluation;
- Familiarization with the object of assessment, collection and processing of data and other information necessary for evaluation;

- Identification of the assessment and related rights, analysis of possible restrictions and warnings that may accompany the procedure for the assessment and use its results;
- Select methodological approaches, methods and evaluation procedures that fully meet the goals and chosen based assessment specified in the contract for the evaluation and their application;
- Coordination of evaluation results obtained using different methodological approaches;
- A report on the evaluation of property (conclusion of the assessment value) at the measurement date;
- Revision (actualization) report (conclusion of the assessment value) on the new date (if necessary).

The expert or specialist information and self-seeking and sources (Except the documents provided to the customer should provide estimates according to agreement), and provides analysis and form are reasonable and conclusions. In the absence of such information or failure in its report on the evaluation of property (conclusion of the assessment value) noted the negative impact of this fact on the results of the assessment.

So, in a normal market economy, perfect (pure) competition set the market value, regardless of the wishes of certain producers (sellers) or consumers (buyers), based on supply and demand.

I. Rohatyuk, PhD, Associate Professor, Honored Lawyer of Ukraine

THE POLYGRAPH IN CRIMINAL PROCEEDINGS: DOMESTIC AND FOREIGN EXPERIENCE

The article is to review the main aspects of the formation of the polygraph as a mechanism to verify the identity of truthfulness, using it as a means of examining the evidence in the criminal process as an example of foreign experience.

C polygraph participant being integrated analyzer physiological state of man, at the same time record the frequency of heart rate, blood pressure, breathing, sweating fingers.

Any conscious effort to deceive the individual causes uncontrolled involuntary physiological reaction, namely the reaction of blood pressure, respiration and peripheral amplitude and impulse electro-dermal changes.

However, the assumption that a lie will affect the physiological changes polygraph examiners will interpret these signs are always led to mistrust of the polygraph. Most psychologists believe that there is not enough evidence to confirm that the polygraph test can accurately detect lies, because lies - a phenomenon of human communication. Mainly as a problem - a lack of evidence that the pattern of physiological reactions unique to deception. An honest man can also nervous, answering truthfully, unfair and cannot show emotions.

Some confusion verifies the accuracy of the polygraph is also linked to the fact that it is used for different purposes.

Currently, polygraph test for use in criminal investigations in many countries, including Belgium, Canada, Israel, Japan, Turkey, Singapore, South Korea, Mexico, Pakistan, the Philippines, Taiwan, Thailand and the United States.

In general use of polygraph, was considerable scientific interest, although it is broad public debate. Most psychologists and other scientists agree that there are many grounds for its application. Courts, including the Supreme Court of the United States, has repeatedly refused to use the polygraph evidence because due to its unreliability. However, polygraph, still used in non-judicial institutions, including personnel for inspection during personnel selection, and to try to assess the reliability of the testimony of suspects and witnesses. Also check sometimes use polygraph individuals to persuade others in their innocence. Quite a frequent occurrence is the polygraph private agencies and corporations.

In Ukraine physiological examination using polygraph is usually prescribed at the initiative of the prosecution to confirm the guilt of the defendants in the alleged acts them. If the purpose of seeking such expertise defender of the investigation and trial often refuse to hear, often motivated by the fact that no such examination.

In general, the use of polygraph in Ukraine today there is no single approach for a number of unsolved problems:

- Lack of legislative regulation of the use of this type of specialized knowledge;
- Failure to polygraph (they are not produced in Ukraine);
- inadequate training of professionals polygraph, which does not meet the needs of the investigative and judicial practice;
- inability to unify departmental methodologies for psychophysiological research;
- The lack of a unified system of certification of polygraphs.

I. Talyanchuk, *Senior Examiner of the State Scientific Research Forensic Centre of MIA of Ukraine, aspirant of the Department of Criminology and Forensic Medicine of the National Academy of Internal Affairs*

USE OF EXPERTISE DURING THE SCENE EXAMINATION (AS EXEMPLIFIED BY THE INVESTIGATION OF CRIMES AGAINST LAND LAW)

Criminal assaults on the land in Ukraine are diverse in nature, because the earth acts subject to different social relations. Its use is governed by those civil law, tax law and environmental law.

The article is to outline the characteristics of the review areas in investigating and solving crimes in the sphere of land relations.

Undoubtedly at the scene is one of the most important investigation in terms of information, necessary for further disclosure and investigation of crimes. Compiled by the results of the review procedural protocol establishes the criminal proceedings in the activities of participants of this investigatory action followed as part of its definition and proof, and seized during the inspection of facilities and tracks as evidence.

The review within the detection and investigation of crimes in the sphere of land relations is directly related to their classification S in terms of possible losses on them, so changing the state of the situation. Crimes, causing significant material damage and untimely suspension which can lead to various disasters, but also affect the condition and quality of the natural environment, its change in a negative sense, include: violation of environmental safety, pollution and deterioration of land, misappropriation of soil cover (top layer) of land, deliberate destruction and impairment of territories protected by the State and sites of natural conservation, protection or violation of subsoil use, design or operation of constructions without systems of environmental protection, unauthorized occupation of land and unauthorized construction , Wasteful use of lands.

For each of these crimes as review investigation (investigative) action should be carried out immediately after receiving information about a crime, involving other participants in criminal proceedings having expertise in this area.

The main objectives of which are put before the specified investigative action are:

- Establish the causes of encroachment on land (pollution, etc.);
- The identification of sources of pollution, diversion or other way of getting;
- Identifying victims (men, their corpses infected animals, plants);
- Setting time limits destruction of land (if possible);
- Conduct rapid analysis and establishment of polluter (involving relevant experts);
- Termination of criminal activities (continuing conscious act that causes damage Violation pits ecological safety, pollution of land waste and other materials, as well as acts carried out with the use of subsoil and which directly affect the life and health);
- Establishing technical rules for the operation and regulation of enterprises situated near the scene;
- Setting people witnesses and possible suspects taking their testimony and explanations;

- Clarify the nature and amount of damage, take measures to secure the civil claim;
- Securing of evidence and documents.

Tactical review provides for the allocation to areas where an act of nodal areas and for the direction of the review. As we know, the theory of criminology distinguishes several tactics to review the areas: continuous (when investigating an unknown center crime), concentric (from the periphery to the center), eccentric (from the center to the periphery), line (front), nodular, planned (method of separation areas into sectors).

As a result The results was given not only contribute to the nomination versions, but also help identify areas of further research and action tactics to investigate crimes of this category.

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SPECIAL FEATURES OF SEARCH, FINDING AND COLLECTION OF PAINT CHIPS IN COURSE OF INVESTIGATION OF TRAFFIC ACCIDENTS

The practice of investigating and solving crimes associated with the use of vehicles and traffic accidents, etc. It turns out that the main carrier subject investigative and evidence-based information is a variety of tracks of vehicles that remain on the subjects of the environment (the road surface and obstacles) on the bodies and victims clothing, as well as on the vehicles themselves.

The seizure and investigation at the scene found traces of vehicles IME t th e only value, contributing to the timely tracing and identification of the most complete facts of the case (especially in the absence of witnesses).

Inspection of the scene, as you know, is a ne of the most informative investigation, allowing determining the main directions of the investigation, to put

forward working versions, to collect the necessary evidence. At the same time it should be carried out swiftly and with the participation of experts with experience in examinations for a given category of crimes.

Of great importance for the investigation of road accidents are fragments of paint, search and seizure which should be given special attention during the inspection scene. This is due to the fact that the impact can exfoliate paint system or under the influence of local heating due to strong friction discolored enamel. In addition, we cannot ignore the fact that in the case of touch-up car in different places of the body will be found different coating system. The detected particles (traces, objects) photographed by the rules and detailed node shooting, their place in the scheme of detection point, plan and protocol, and then fixed and withdraw.

Often paint It occurs where there lacerations on garments in a small stoppered and layers.

In the case where there is a risk of loss during transportation of objects or object-carrier remove and cannot be stored, the particles refinishing are removed and packed during the inspection. The study of traces of paint on the subject of the carrier identifies the location and nature of their distribution on the surface, which helps to clarify the mechanism of the accident.

Often presented Paint scrapings not suitable for carrying out a comparative study as it does not reflect the need for a set of attributes of the object is identified due to the locality of its individual properties. Unrepresentative samples identified object by the fact that the facts do not count tinting or repainting of the vehicle and the fact that not all the details are painted on a single technology. In addition, taking into account the interests of car owners, scrapings are often taken from the field, spatially remote from the exposed surfaces. As a result, difficult to determine the morphological characteristics and composition of the coating material, as even within one standard paint Vehicle marked variation pigments, the degree of destruction of the structure, and so on. d. It is therefore necessary to select a few samples (3, 4) with different surface areas of a vehicle.

It should always be remembered that effectiveness assessments determine the quality and completeness of the initial on-site inspection of a traffic accident, detection, seizure and direction of physical evidence for further research.

P. Kharkivskiy, *Head of Section of Zaporizhia Region Scientific Research Forensic Centre of the Ministry of Internal Affairs of Ukraine*

PROBLEMS OF FORENSIC

The rapid development of information technology, electronic data processing systems and computer networks moves civil society ahead, while making it more vulnerable. Groups of cybercriminals find new vulnerabilities in communication technologies and use them for their own criminal purposes.

Council of Europe Convention "On crime in cyberspace", which came into force in July 2006, is the only international legal instrument in this field. Ukrainian legislation to ensure cyber security is developed by the Law of Ukraine "On the basis of security of Ukraine."

Today most justified is this classification computer expertise:

- computer engineering expertise concerning its operation, technical condition, suitability for certain tasks;
- Examination of media and software products, including computer programs of research, detection of trace information, restores deleted information etc.
- Computer and network expertise, establish that interfere with the computer system, searching for committed trace information using various means of communication crimes, investigation of network operating systems and software for computer networks;
- Examination of mobile phones and smartphones;
- Examination of video recorders.

With cities programs and training specialists Internal Affairs of Ukraine to conduct computer expertise advisable to attach to this classification phased study of

the five areas with the aim of training experts, a thorough study of their methodological materials, you acquisition of practical skills.

Active development requires methodical base computer expertise, and and inter-agency cooperation in the development and implementation of new scientific developments.

To overcome the existing problems and ensure further development of computer expertise should be taken so s organizational and practical measures along:

- Create DNDEKTS at the Interior Ministry of Ukraine database hardware and software and related expert programs if necessary to ensure access to regional units;
- Create a forum such as a conference call to address current issues (the so-called "brainstorming") with the expert tasks;
- Periodically conduct training on topical issues of new research facilities computer expertise, including research software to detect trace information used by criminals on the Internet;
- To improve the program of training in conducting computer expertise according to the proposed classification;
- Having regard to the specific formation of personnel reserve Examine the establishment of a National Academy of Internal Affairs and Kharkov University of Internal Affairs group training of specialists in forensic computer expertise.

S. Buhonskyi, *Senior Examiner of the Kherson Region Scientific Research Forensic Centre of the Ministry of Internal Affairs of Ukraine*

EXPERT STUDY OF DISTRIBUTION WOOD CHIPS

Investigation of crimes related to the illegal cutting of forests, timber theft processed and finished products are mostly accompanied by certain difficulties.

Topicality of this problem results in lack county methods to install a wood in parts, as well as technical tools and software such studies, lack of information reference resources and low equation of specialized knowledge experts.

Given that the wood in its structure is complex, layered fibrous nature expert who will study it, is well aware of its properties.

On cross-section of the trunk wood following main macrostructural units wood: bark, phloem, cambium, sapwood, core, core.

Comparison pieces of wood that can be separated by cutting or hacking with common dividing line, is made by combining both contours lines roses division, and on the structural features of the relief end surface land, which studied part. This match should be not only on the line and terrain separation surfaces are combined, and for placing a picture of wood structure, color, individual sections and layers of wood, nature defects and layers (color, etc.).

Widespread use of acquired authentication method allows areas to establish mutual affiliation tree trunk without intermediate area rather large extent (such as hemp and the upper half of the crown). The so-called second dendro-chronological method greatly helps professionals to combat "black" loggers.

Thus, the correct fixing you trace illegal logging, preparation and preservation of research for examination by a parts and dendro-chronological expertise contribute to definitely more effective investigation of environmental crimes. The results of this expert research will reach a categorical conclusion that the court will be conclusive evidence of guilt of a person suspected of stealing the forest.

S. Danets, Chief Examiner of the Kharkiv Region Scientific Research Forensic Centre of the Ministry of Internal Affairs of Ukraine

APPLICATION OF NEW TECHNICS OF LASER SCANNING FOR EXAMINATION OF SCENES OF ROAD ACCIDENTS

During the inspection of the accident important probative value may have info about the relative location of the victims, the relative location of the vehicles and their fragments, traces on the road covering the wheels of vehicles, scratches on road surfaces or road structures from vehicle trails shattering glass and soil, traces of fluid

from the vehicle and so on. At this time, there are several ways of fixing such a trace and information at the site of the accident.

The first way - traditional, when fixations and measurement is done by hand using cameras and camcorders, measure tapes and rotameters. The scheme of the accident drawn by hand on paper and. The disadvantages of this method of fixing the trace information at the accident include the long time spent to collect the necessary data, the possibility of errors during measurement copying, and fixing data in the difficult conditions of the study and a long time of accidents which quality is quite low.

The second way to collect traces information at the accident and theories but based photogrammetric survey. With the camera make two or more photos of the accident scene from different points of that process using a special program that allows carry out the necessary precision measurement.

Ned remedy this method of fixing the trace information is limited in its application visibility in the evening and night time, under conditions of rain, snow rather complicated interface to calculate dimension, the need to use dimensional object, failure to comply placing of which on the scene significantly (several times) increases REGULATION error of measurement and long time from start of design to output in the document.

In developed countries during the investigative measures at the accident increasingly wide district acquires laser scanning of terrain and objects, resulting in three-dimensional city of Del. Laser scanning provides a photographic similar to, but presented in a three-dimensional image of the amended ability to free us and angle. Using laser scanning obtained picture of the scene, which can be e Save drives on any digital media and, most importantly, there is no possibility to change it.

For the tasks in question laser scanning system must meet the following requirements:

- Have a high resolution and accuracy in performance of measures;
- To be portable, to allow rapid deployment and installation;
- Allow work at low temperatures, rain, low visibility and lighting;
- Display various visible traces on the road;

- Measure terrain and objects.

The software that comes with the scanner can not only visualize three-dimensional images of the scanned places, but arbitrarily change the position of the inspection of the accident. This lets you create a virtual three-dimensional picture of the kind of adventures (including various kinds of top, bottom, sides, and within the car), and then analyze the situation in detail.

For better assembly of large-scale schemes of the accident graphics programs are used.

The apparent advantage of using scanning of the accident is that the expert, investigator and judge are not only able to "return" to the accident to establish the place location of various objects at the scene after the inspection, but afterwards identify information that is not noticed during the inspection. Thus any traces and objects can be studied in detail.

In the end, laser scanning allows the collection several times increase informative and collected at the scene data provides a clear and convenient visualization in three-dimensional form that allows you to reach in and obtain high illustrative quality, similar to the photos and video. There is an opportunity precisely measure distances and objects are denoted by the coordinates of the scanned points. The inspection of the accident scene several times reduced from several hours to several tens of minutes. Conduct can scan only one person, while the measurement is usually carried out at least people, and the rights and carrying out such measurements ness watch two more of those. Scanning can be performed in the dark, not HPV and sings on the results. There is no need in making major schemes the accident as received 3D-image after scanning saves the actual size of objects.

Due to mentioned, in the near future the traditional inspection of protocols and schemes of an accident may be supplemented or replaced by their three-dimensional images obtained using laser scanners. To do this expertise to develop methodology for automated circuit accident on the results of the first laser scanning.

V. Seredynskyi, Senior Examiner of the *Volyn Region Scientific Research Forensic Center of the Ministry of Internal Affairs of Ukraine*

AUTHENTICATION OF WATCHES (ON THE EXAMPLE OF SWISS BRANDS «ROLEX» AND «TISSOT»)

Market counterfeit luxury watches developed worldwide. Some experts estimate the annual turnover of the global counterfeiting industry is about \$100 billion. Therefore, the assessment of this type of product requires a fairly detailed review, and knowledge of not only the original identification signs, but signs (at least the most notable), which can identify counterfeit already during the first inspection.

Fakes watches for the price and quality of conventionally divided into 3 categories:

- Superficial;
- Good;
- Institute of Eye copies (some of them can even diamond inlay, although low purity).

Article enough detail the grounds on which you can verify the authenticity of watches, clocks installed signs identifying marks Swiss «ROLEX» and «TISSOT».

Set forth in the ID features allow you to verify the authenticity of watches that further enables Expert commodity reliably determine the value of the research.

With only ice noted that distinguish high-quality counterfeit which issued the original, extremely difficult. Without detailed examination of the body and mechanism likelihood of mistakes is extremely high.

L. Sidorenko, Chief Specialist of the *Cherkasy Region Scientific Research Forensic Centre of the Ministry of Internal Affairs of Ukraine*

COMPARISON OF THE MODERN REQUIREMENTS FOR OBTAINING OF HANDWRITING SAMPLES WITH THE ONES OF THE 1911 MANUAL OF THE POLICE OF THE CITY OF BERLIN

Despite a rather long period of handwriting examination and its implementation is still fraught with difficulties concerning proper training handwriting samples for comparative research.

For the same quality training of samples for comparative studies depend on the opportunities of experts in solving their tasks. It should clearly understand the proponents of handwriting examination.

Available now scientific guidelines on sampling of handwriting or signature emerged so to speak not in an empty area. They are caused by long-term domestic and foreign expert practice.

The article presents equally requirements for handwriting sample preparation set out in a book, translated from German, "Practical guidance for detectives" which came out in Moscow 1925, with the current requirements set in relevant methodological recommendations.

According to the analysis available to date scientific guidance on the preparation of handwriting samples essentially indistinguishable from those of recommendations of a hundred years ago in Germany in the relevant instructions. And some, other recommendations clearly due to the peculiarities of conducting handwriting examination and must be strictly implemented as persons appointed for handwriting examination and expert. This approach will allow better and more efficient spending of expert handwriting analysis to address the identification problems.

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O. Shevelyeva, *Examiner of the Dnipropetrovsk Region Research Forensic Centre of the Interior Ministry of Internal Affairs of Ukraine*

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DETECTION OF PREVIOUSLY WASHED BLOOD STAINS BY QUICK TESTS

One of the common methods and concealment of blood is flushing it with certain surfaces and laundry, including with the use of household chemicals. As the experience of expert practice, it is important to consider the fact that the review is usually carried out almost immediately after the crime, and after a certain period of time (determined at the time of inspection), and therefore, an important factor is the period of soaking contaminated object.

Overall for blood samples are divided into two groups: preliminary (estimated) and significant (evidence). During the inspection of the scene detect traces of a substance similar to blood (in liquid or on the surface of the object) and its so-called preliminary reaction. They are not evidential, but focusing on results, net conducting operational and investigative activities that allow you to search for criminals "follow a hot scent". However, in the case of clothes soaked in a substance similar to blood, to consider the possibility shortcomings are the results of previous reactions (due to a substance that contains the object, join in oxidation-reduction chemical processes underlying the preliminary reactions).

Important for the course of the past (estimated) reactions have subject vehicle, including the tissue that holds the fibers in their studied components. From the structure of these fibers, their chemical composition and processing to some extent depends on the ability of a substance to seep through the fiber. Washout impregnated substance is not the same in different types of textile fabrics. In addition, fiber is a substance that is also able to enter into chemical reactions.

Analysis of the results of experimental studies leads to the conclusion that the use of the past's reactions on items soaked in solutions of household chemicals, are ineffective because they mostly provide false positive results which do not confirm Xia evidentiary method blood tests. In some cases, previous reactions provide a

positive result even when studies control samples in which no blood at all. In addition, in the case of long-term instead of soaking these reactions studied blood components are able to identify products formed in solution. The most "hard shredder" of blood is the means of "Bed" and household soap. The best results can be obtained in the study of fluids (solutions) in which fabrics and especially thick and.

A. Tereshkevych, *Head of Section of the State Scientific Research Forensic Center of MIA of Ukraine*

APPLICATION OF 3D-SCANNERS BY THE FORENSIC SERVICE OF MIA OF UKRAINE

Good example of evolutionary changes in the development of electronic technology is the creation of analog and electronic cameras.

A true revolutionary breakthrough in the development of electronic cameras started In the twentieth century with the establishment and Sony (Sony Corporation) and good samples light-sensitive sensor and the advent of personal computers and printers that allow electronic processing photos.

Today is known for photographing objects mostly used electronic camera. However, if the expert has to photograph large objects of complex shape with a maximum display of all their individual characteristics, he must make some shots. However, even such measures cannot fully reflect all the characteristic features of these objects.

The way out of this situation is the use of the newest method of fixing objects, such as 3D-scanning method. The essence of this method is to create three-dimensional (360 degrees) electronic copy of the object, which later can view and explore using special software and print on plain or 3D- printer.

3D- scanning method advantages are:

- Opportunities to use when scanning complex objects;
- The possibility of further printing scanned object on 3D- printer;

- The ability to view an image of the scanned object at different angles and from different angles;
- The ability to process scanned images using 3D- graphics processing software.

However, 3D- scanning is not without drawbacks, including:

- Relatively high cost of software and hardware so devices;
- The need for special knowledge to work with the appropriate software;
- Unfitness for work in the field.

There are two main types 3D- scanning objects that the principle of scanning differ significantly from each other.

The first kind 3D- scanning involves the use of laser that allows to get accurate coordinates of each point of the object that is scanned. It is indispensable when the scanned image used for certain tasks through completion.

The second type Use 3D- scanning involves Reference optical system. Mostly these ordinary cameras with special software and a stand to rotate the object that pictures. The object you want to photograph, is placed on a special platform stand, during its rotation around its axis in the camera makes a series of frames from one point at different angles and then all the images "stitched" into a single visualization.

This 3D- scanning evident is ideal for imaging the object, its detailed review of the computer. The advantage is the relative ease of use of the software. The disadvantage of this type of scanning is the lack of the exact coordinates of each point of the object, and consequently, the electronic image cannot be further expanded to the point and print on 3D- printer.

With 3D- scanning method in the Service of MIA of Ukraine undoubtedly raise to a new level of the fixation of objects and their further research will promote the work of experts, new software and new modern appliances, and thus enhance the quality of examination.

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EXAMINATION OF NONDAIRY FAT INCLUSIONS IN FAT-AND-OIL PRODUCTS

The article is a presentation of the results of examinations and adulterated by the use of vegetable fat dairy products by determining the content of nondairy fat.

In practice, experts are often faced with the problem of determining compliance milk her current production standards.

Among dairy products often falsify butter. The main component of this product should be not less than 61.5% milk fat, in the cities of cholesterol in butter can vary from 190 mg to 250 mg per 100 g. However, according to various experts, 60-80% of which are sold under the guise of butter is fat mixtures.

Counterfeit oil products can be divided into two groups: the "gross" - when the content exceeds 10 nondairy additives %, and "thin" - when non-dairy additives are less than 10%.

To establish a "rough" rigged using photometric and titrimetric methods of analysis. To install "thin" rigged using chromatographic techniques.

These methods allow analysis clearly identified vegetable fats in fat products. In particular, in the study by using these methods, the presence of vegetable fats in spreads within 28.1 - 32.0 % (Corresponding regulations) and the butter within 0.9 - 1.5 %.

O. Shushko, *Examiner of Zaporizhia Region Scientific Research Forensic Centre of the Ministry of Internal Affairs of Ukraine*

PARTICULAR FEATURES OF FORENSIC EXAMINATION OF DOCUMENTS

According to the laws and regulations of the original document - it is one of the components of the accounting document that contains information on business operation and confirms its implementation.

The primary documents that capture the facts of business operations, is the basis to reflect these transactions in the accounting on which enterprises are obliged to prepare financial statements. Usually the primary documents are made up during the execution of business operations, and if this is impossible - immediately after its completion.

At each stage of the study of primary documents, accounting data, statements and other documents expert checks all required details, signatures and seals, accuracy of documents and reasonableness of accounting records reflected (unsubstantiated accounting records are those that are not supported by primary documents).

In course of study of primary documents forensic economist ascertains their compliance with registration laws and regulations (such as whether there was a groundless cash payment).

In and practice, in addition to a regular and those that accurately reflects business operation of primary documents, expert economist faced with poor quality primary documents (which are decorated poorly), which in turn are divided into defective in form and in content displayed in these operations.

Prior to poor quality documents are unformed in shape (or partially formed) and incorrect (e.g., of an unofficial form) documents.

Given the diversity of falsification of documents exposing economic crime is impossible without a comprehensive examination of handwriting and technical documents.

Handwriting examination enables identification artist handwriting (alphabetic and numeric entries) and signature; establish the fact of the manuscript under the influence of certain (natural or artificial) "knocking" factors in unusual circumstances or unusual state artist deliberately altered handwriting, with the following handwriting another person.

With technical expertise documents establish the facts and how to amend the document (in largely usable, digestion, write-ups, photo substitution, letters, etc.) show bathed, smeared, faded and other poorly visible or invisible text (images) on various materials, personal identification which published the typewritten text, images produced seal, and the seals, stamps, facsimile, etc. for their prints, prints set time applying stamps, seals, date of manufacture, etc. document.

Thus, forensic examinations and the Economic and Research allows primary documents as the formal features and content displayed operation, and comprehensive technical expertise handwriting and documents - to conclude on falsifying primary documents.

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**IDENTIFICATION OF GUN MODEL BY MARKS ON VICTIM'S
CLOTHING LEFT BY 'FORT' SERIES OF PISTOLS
(CAL. 9X18 MM)**

Currently, forensic examination of gunshot injuries is one of the most difficult in forensic medicine.

Establishing models of firearms is one of the major challenges within the forensic examination of firearms injuries. After all, if a shot close to the body or clothing of the victim is usually a reflection muzzle end of the weapon, which completely or partly can display configuration muzzle weapon that allows you to set model Weapons and vzayemopolozhennya to its target.

The most common short-arms among law enforcement, security and military structures of Ukraine for many years remained a Makarov pistol. But he is now on its tactical and technical characteristics does not fully meet the current requirements of their professional tasks these structures and, moreover, is not produced in Ukraine. Ukrainian scientific-production association "Fort" commissioned by the Interior Ministry of Ukraine has developed and established mass production of pistols "Fort 12", "Fort 17" "Fort 14TP" caliber 9 x 18 mm.

Given the lack of research facilities damaged forensics caused as a result of shots pistols "Fort 12", "Fort-17" and "Fort 14TP", including to establish models of firearms, based Research Forensic Centre at the Ministry of Internal Affairs of Ukraine on the Southern Pacific Railroad were conducted research.

Shots performed with pistols "Fort 12", "Fort-17" and "Fort 14TP" regular ammunition 9 x 18 mm. As a target used plain weave cotton cloth (calico) size 40 x 40 cm. Targets special frame fixed to the top of the set and upright. Shooting conducted a series of five shots in all kinds of separate targets with each gun.

Study allowed ensure that the shot at short distance domestic production of pistols "Fort 12", "Fort 17", "Fort 14TP" caliber 9 x 18 mm stamp imprints have some specific features that should be used when determining the models of firearms.

M. Shcherbachenko, *Examiner of the Odessa Railway Scientific Research Forensic Center of the Ministry of Internal Affairs of Ukraine*

ELECTROTHERMAL ATOMIC ABSORPTION DETERMINATION OF LEAD AND CADMIUM IN DIFFERENT ALCOHOLS

The questions of optimization and study conditions direct electrothermal atomic absorption determination of trace lead and cadmium in different alcoholic drinks via the graphite sleeve filter using modifiers matrix: palladium nitrate Pd (NO₃)₂, magnesium nitrate Mg (NO₃)₂, monohydrogen ammonium (NH₄)₂HPO₄, NH₄H₂PO₄, ammonium dihydrogen phosphate, and mixtures thereof.

Electrothermal atomic absorption determination of lead (Pb) and cadmium (Cd) was performed on an atomic absorption spectrophotometer "Saturn-3M" with a set for electrothermal atomization "Graphite-7" (made by "Khimavtomatika", Severodonetsk).

The results of these studies formed the basis of a fairly simple, rapid (5 - 7 min) and sensitive method of direct electrothermal of atomic absorption of determination of Pb and Cd in various alcoholic beverages. The accuracy of determination of these elements is tested in accordance with the basic rules of mathematical statistics in the processing of the results of chemical analysis.

The developed method of direct electrothermal of atomic absorption of determination of Pb and Cd to determine their concentrations in alcoholic drinks: Pb 0.002 mg / dm⁻³ and Cd 0.0001 mg / dm³. The magnitude of the relative standard deviation (S_r) does not exceed 10%.

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PARTICULAR FEATURES OF SOOT DEPOSIT LEFT BY CARTRIDGES FOR MAKAROV PISTOL BY DIFFERENT PRODUCERS

Soot as collateral factor is shot informative phenomenon, forensic, medical and forensic studies which can solve several significant expert tasks.

The article aims to study the characteristics of soot adjournment on experimental target of textile and composite (polyester + viscose) material when using ammunition made by various technical conditions for domestic enterprises.

A series of shots made Makarov pistol perpendicular to the surface of the target at a distance of 10-15 cm with cartridges 9×18 PM two domestic producers.

During the experiment uses visual narrative and the measuring methods, methods of direct microscopy fixing digital color photography.

Experimental studies allowed reaching the following conclusions:

- In the case of ammunition 9×18 PM when making shots from a distance of 10 to 15 cm formed complex configuration for traces of soot deposits, which differ significantly depending on the applied cartridges;

- The intensity of the color depends on the modification of soot cartridges manufactured by different technical conditions;

- Differences in the characteristics of soot deposits as an additional factor caused the shot (hypothetically) throwing different chemical composition of matter and varying degrees of dispersion particles formed as a result of explosive decomposition;

- Features of soot as a factor close shot (configuration and intensity) can be used as an additional differential feature in the forensic and medical-forensic research.

Barr body and molecules of DNA - the best weapon in the disclosure and investigation of crimes on sexual soil

Crimes against sexual freedom were always a great danger to society, characterized by immorality and cynicism action guilty. Its disclosure and investigation is particularly important, especially at the initial stage - during the inspection of the scene to find traces of the crime (criminal action) to clarify the circumstances of its commission and other circumstances.

Items with traces of the crime can be divided into objects, substances (bulk, liquid, gaseous, ointments), microscopic and objects of biological origin (blood, saliva, sweat, semen, hair, bones, organs and tissues of the human body). One of the main roles in solving crimes on the ground of sexual play just traces of biological origin, because through them can be quite accurately identify the person involved in the crime. The characteristic features of biological objects is that they tend to be less visible compared to other tracks and eventually change their properties. Therefore, they need to search for and fixing expertise, and the use of special equipment.

After photographing of identify and trace the origin of biological information objects excluded from compliance with certain requirements.

The study traces of biological origin carried out in laboratory conditions, applicable immunological, cytological and molecular genetic methods.

According to expert practice, special attention while solving crimes on sexual soil should be given the complex cytological and molecular genetic studies of traces of biological origin.

That possibility of a new method of molecular genetics (analysis method polymorphic sites of the human genome) enabling to identify a person for the traces left it at the scene. The principle of the method is based on the allocation of human biological material and nuclear DNA purification and further analysis defined areas (loci) DNA molecule.

Method of DNA analysis allows establishing:

- Biological traces belonging to a person with a high degree of probability;
- The presence of biological traces each participant events when the tracks are formed by mixing;
- Biological paternity (in the case of disputed paternity (maternity), infanticide, theft, substitution of children).

The article presents a vivid example of disclosure I crimes against sexual freedom using complex cytological and molecular genetic study of objects of biological origin Eden Lane in Research Forensic Center of the Ministry of Internal Affairs of Ukraine in Vinnytsia region. In this example, complex cytological and DNA research able to most effectively get a DNA profile from small quantities of biological material that was micro traces and layers on the objects of study.

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INTERSPECIES DIFFERENTIATION AND IDENTIFICATION OF POLYESTER FIBERS BY THE ANALYSIS OF DIGITAL IMAGES OF THEIR INTERFERENCE PATTERN

The use of modern means of software can not only increase the accuracy of the results, but also reduce the impact expert (as the human factor) on the course of study. Illustrative information received from the use of electronic resources in the form of photos and graphics, histograms, spectrum is proof that clearly confirms the credibility and independence and conclusions of experts.

During the forensic investigation fibers and products from them using methods of polarization microscopy. In practice, most commonly used method of compensation microscopy, which is suitable for the analysis of anisotropic materials (heterogeneous) structure that is characteristic of most types of textile fibers. Such fibers in the polarizing light interference acquire color that reflects their inner

structure. Character coloring fibers can be as uniform and as a figure: symmetric or asymmetric longitudinal bands of different colors, oblique stripes of different plane spots. Color interference color figures and fragments depend on the structural features of molecular and supra molecular structure of fiber-polymer, its degree of homogeneity and orientation of the structural elements in space. The analysis, based on the visual comparison of fibers on a patterned color interference and color, allows spending interspecies and interspecies differentiation fibers and spend their identification, that figure qualitative characteristics of the fiber. Quantitative characteristic interference pattern can be obtained by differentiation of figures and colored areas and calculating their planes. Following the results of the analysis of color histogram fiber components allow for a comparative study on more qualitative level. Getting histogram selected planes of different colors - quantitative characteristics and additional features fiber type and subtype - and is dedicated to the research, and the coverage of the survey results - this article.

Proved that getting graphic images on the analysis of digital images of the interference pattern of the fibers and polarization light microscope and allows simplification and improvement of the process and identification and classification of polyester fibers within species, including confirm experimentally, the conclusion.

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SCANTILY EXPLORED LIFE HISTORY OF NIKOLAY LUCHINSKIY - FAMOUS RUSSIAN CRIMINOLOGIST WHO STUDIED CORRECTIONAL INSTITUTIONS

On the basis of archival materials and little-known pre-revolutionary literature highlights his life and creative activity of the famous criminologist, head of the Central Bureau of fingerprint of the Main Department of the Ministry of Justice prison Russian Empire Nicholay F. Luchinskiy.

Nicholay F. Luchinskiy was born 22 (10) January 1860 in Tarashcha village of Kiev Province in the family of a retired chief officer. After graduating from high school he entered the law faculty of the Imperial University of Novorossiysk, from which he graduated in 1882 with a degree in human rights.

In February 1883 Luchinskiy was determined a candidate for judicial office with the Prosecutor of the Odessa Court of Justice, and in December of the same year he was dismissed in connection with the involvement of the inquiry, which soon against him was dropped. In October 1889, it was restored in the position of a candidate for judicial office with the Prosecutor of the Odessa District Court.

After passing the exams in St. Petersburg District Court, he was appointed a candidate for judicial office at the St. Petersburg Prosecutor Court of Justice. In December 1890 he was appointed assistant magistrate in the district of Fergana regional court.

Two years later, he had another purpose - companion (assistant) Prosecutor of Samarkand Regional Court, and in July 1895 - the assistant prosecutor of the Riga Regional Court. In Riga, Luchinskiy received the rank of titular counselor, which corresponded to Luchinskiy title "Staff - Captain."

In March 1901 Luchinskiy used assigned the duties of the Kiev provincial prison inspector, but in September the following year he was dismissed in connection with the escape of political prisoners from Lukyanovskaya prison. In August 1903 he was appointed w t magistrate 7th area Yuryev-Verroskoth District Livonia province.

January 1, 1906 Luchinskiy got the "general's" rank of State Councilor and was appointed Secretary of the Board of Prison Affairs, whose duties performed within five years.

In the spring of that year, he, along with an official e GTU Baron A. Stackelberg was sent to Berlin to study the methods used in Germany fingerprinting criminals and registration system of fingerprint images.

In January 1907 the Ministry of Justice decided to establish at the Central GTU fingerprint bureau. The head of CDR was appointed part Luchinskiy.

In January 1911, the actual state councilor Luchinskiy was appointed inspector of the GTU class V, and was soon elected as a member of the Advisory Council to the Minister of Justice, while at the same time the head of the CDR.

He lived a valid State Councilor Luchinskiy on the street Pool 45 in the city of St. Petersburg.

His fate after the revolutionary events of 1917 is not known.