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HISTORY OF THE ORIGIN OF SPECIAL FABRICS AND THEIR CURRENT STATE

**Murodkhujaeva K.B., phd student, Sodikova N.R., associate professor,
Siddiqov P.S., professor**

*Tashkent Institute of Textile and Light Industry,
Tashkent, Republic Uzbekistan*

Abstract. *This article analyses the history of the origin of special fabrics and overalls and the current stage of development of overalls.*

Key words: overalls, apron, appearance of overalls, workwear.

Overalls are more than just clothes. In addition to its direct purpose, this textile product should provide comfort, convenience and, most importantly, safety to the worker. The apron, as a special garment (the equivalent of a modern uniform), appeared with the first human society. In this way, the first apron was made in Ancient Egypt, where it was worn by the statesmen of the time. In order to distinguish themselves from their fellow citizens, the rulers used an apron consisting of a strip of leather and fabric. The leather could also be replaced by woven cane stalks. The apron as a workwear was also made in the Ancient East and Western Asia. In Ancient Greece the apron was worn on a leather belt and tied with a woollen scarf on top. References to overalls or working clothes are also found in the history of Ancient Greece and Rome. The clothing of slaves consisted of a tunic with short sleeves that did not reach the elbows and a thick, thick cloak. It is a quadrangular piece of thick, coarse woollen cloth that was thrown over the back and fastened with a fibula on the right shoulder or at the front below the throat and resembled a Macedonian cloak. Such a cloak was a special garment worn by Roman soldiers. Thus we can note the origin of the special military uniform. The public servants, in order to distinguish themselves from other spheres of activity, wore aprons. Later, in the Late Middle Ages, the apron became the basic type of protective clothing for various occupations and began to turn into work aprons, dictated by the requirements of the profession and the need to protect the body from burns, wounds or simply dirt and dust, and protection of clothing, which was for peasant and craftsman a significant value. Aprons – a permanent attribute of special work clothes blacksmiths and glassblowers bakers, butchers, confectioners, confectioners and others. Aprons were necessarily worn when slaughtering livestock. Often it served not only to protect clothes, but also as a kind of «pocket», where it was convenient to collect fruit or pour grain for sowing (Fig. 1).

Subsequently, upgrades to aprons spawned the appearance of dungarees. In 1911 Lee produced The Bib Overall, a comfortable piece for factory workers, track workers and farmers. In 1913 the world's first closed overalls were introduced. The idea came from Henry Lee himself. One day he noticed his chauffeur's oil-stained shirt, which had come loose from around his waist while he was repairing his car. Within days, the novelty, dubbed «Lee Union-All», was launched. The closed jumpsuit instantly became an all-American success.



Figure 1

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Fishermen created a kind of workwear for themselves. This rarest case of wearing striped dress in France of the Late Middle Ages had two explanations – firstly, people who went to sea, represented a marginal community, which was not without suspicion looked at the «land», and secondly, from a purely utilitarian point of view, white and blue stripes were clearly visible in the water, should a fisherman happen to be overboard. This fisherman's dress, which consisted of a wide shirt with a leather belt and wide trousers, was additionally impregnated with hot wax, which made it impermeable to water. Three-toed gloves or sheepskin mittens were used during construction; for example, bills for such leather gloves and mittens for bricklayers have survived. Of the headwear that protected the head and face from heat, dust and dirt, or prevented hair from getting caught in the dough, numerous headbands, turbans, linen kali and kalots are worth mentioning. The characteristic peasant straw hats with wide brim, which we often see in images of reapers and ploughmen working in the fields. Special hats with wide brim that covered the head and shoulders completely were sometimes seen on beekeepers. A kind of transparent shield covering the upper part of the face was often used by glassblowers at work. Finally, hoods with a long pelerine covering the back were used when it was necessary to carry something potentially dirty on clothes - bags of grapes, fruit, building materials, etc.

The jeans we love so much were originally invented as workwear. An emigrant from Bavaria, Levi Strauss, thrown out into the street and having only a roll of canvas at his disposal, sewed the first trousers from this material, which later came to be called jeans. They were intended for miners and gold diggers. The only drawback was that the nuggets would tear the pockets, which had to be reinforced with rivets used to fasten the horse harness. Farmers and cowboys liked the reinforcements. The sailcloth trousers are beginning to be widely used as workwear in many areas of production (Fig. 2).



Figure 2

Workwear appeared only in the middle of the 13th century - modern overalls in Russian history began to develop in 1741. In that year a decree was issued, requiring compulsory issuance of uniforms to factory workers - at that time Russia issued the «Cloth regulations», which stated the need to introduce special clothing at all manufacturing factories. However, its purpose was determined only by the need to improve the appearance of workers. The clothes were uncomfortable to wear. Baggy trousers made of cheap fabric and dimensionless jackets made work clothes not so much comfortable as degrading.

In 1815 they began to manufacture commercially in the USA and Europe overalls that also protected the chest. The first visually documented examples of these garments are reflected in a painting, In The Woodshed, by James Clonery in 1838 (Fig. 3).



Figure 3

The next important milestone in the development of workwear in Russia was the creation of a research sewing institute in 1930. All this time the institute has been developing the technology of clothing manufacturing, controlling the quality of materials and finished products for the needs of various state and industrial structures. At first, the range of overalls was small. But already in the early 90's of the XX century large-scale development of new models of clothing intended for use in various industrial spheres began.

The current stage in the development of workwear.

In recent decades, managers have concentrated on providing their employees with uniforms. The clothes worn by the employees should not only protect them from negative technical and environmental influences, but should also be beautiful and stylish. In addition, work clothes and uniforms, whether it be work coats, medical uniforms or even special shoes - all of the above can be used as an advertisement of a particular company. To do this, the overalls are printed with the company logo, which will be a kind of promotional campaign. That is, at the present stage of overalls becomes part of the brand. Now sewing overalls are engaged in many firms. In addition, there are many types of uniforms: medical clothing, workwear, corporate uniforms, uniforms of service sector employees. This diversity has caused a genuine interest designers and stylists, there were new styles and styles, women's overalls have been allocated to an individual type, new fabrics for overalls. Model forms of clothing have also attracted the attention of managers and firms that noted the overalls as a way to stand out in the thematic market and improve their corporate culture. Currently, the range of workwear includes tens of thousands of items, for each workplace owner of the enterprise may order the development.

Workwear should meet the following basic qualities:

- to be comfortable;
- they must be durable;
- be comfortable; -be durable and washable;
- washable by washing machines;
- functional;
- cleanable by washing machines;
- be functional;
- be aesthetically pleasing;
- be well washed by washing machines; -be functional;

- be aesthetically pleasing;
- be hygienic;
- the cost should be as low as possible.

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ПОВЫШЕНИЕ ПРЕДЕЛА ПРОЧНОСТИ КОЖИ

Ниязова Р.Н., асс.

*Бухарский инженерно-технологический институт,
г. Бухара, Республика Узбекистан*

Реферат. Более высокие прочностные показатели получаются при использовании сульфатированных и сульфированных жиров. Также минеральное масло и нейтральные глицериды (говяжий и технический жир) повышают выносливость кожи примерно в 2–3 раза по отношению к нежированной. Повышение предела прочности кожи в результате жирования зависит от природы жирующего материала.

Ключевые слова: сульфогруппа, сульфатированные жиры, ворвань, минеральное масло, вязкость жирующего материала, хлорированные парафины, гидрофобная часть молекул, раствор мицеллы.

Прочность удерживания жирующих веществ в коже во многом зависит от их химической природы. Сульфатированные жиры удерживаются в коже более прочно по сравнению с другими жирами, благодаря наличию у них сульфогрупп. С другой стороны, при применении, твердых и вязких жирующих веществ и при введении в кожу значительных количеств их, играет роль уже не химическая природа, а вязкость. Так, например, минеральное масло из-за своей низкой вязкости легко удаляется или теряется кожей под действием пыли.

Повышение его вязкости путем добавления синтетического каучука значительно снижает потери минерального масла. В другой работе авторы, изучавшие потери кожей различных жиров при обработке ее пылью, отмечают, что жидкие жирующие материалы (ворвань, минеральное масло) извлекаются пылью в большей степени, чем твердое говяжий жир, парафин), а материалы полярные (сульфированная ворвань) меньше, чем неполярные (минеральное масло). Сульфированная ворвань хорошо удерживается в коже при обработке последней сухой пылью не только вследствие своей полярности и высокой вязкости, а также из-за содержания твердых компонентов. Однако повышенная вязкость жирующего, материала обуславливает увеличение трения на поверхности соприкосновения фаз масло–вода, отчего скорость движения жировых частичек уменьшается, что может ухудшить жирование кож [7].

Вязкость сульфатированного синтетического жира представлена в таблице. Для сравнения этот показатель проведен для исходного синтетического жира, продукта его модификации и некоторых других жирующих веществ

Из полученных результатов видно, что после сульфатирования синтетического жира вязкость полученного сульфопродукта уменьшилась, что является важным фактором для улучшения условий эмульсионного жирования кож. Снижение вязкости сульфатированного синтетического жира можно объяснить, по-видимому, замедлением структурирования макромолекул жира, в связи с взаимодействием их с серной кислотой [6].