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# **Universal Sewing Machine New Construction Presser Foot**

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**ABSTRACT:** This article is devoted to light industry equipment, namely sewing machines that are used in the manufacture of clothing, footwear and knitwear. The disadvantage of this design is the lack of shock absorption of trigger and rod vibrations caused by changes in the thickness and structure of the sewing material, impact resistance of iron and incompatibility of rotating elements in the sewing machine.

**KEY WORDS.** Sewing, shoes, finisher pushing mechanism, sterien, finisher, finger, finisher, bracket, link, flower, rocker, rack gear, Cam, agitator, needle, differential, housing, oscillation amplitude.

## **I.INTRODUCTION**

The invention relates to light industrial equipment, that is, sewing machines used in the production of clothing, shoes and knitwear.

In sewing machines of the 1022 class, the mechanism pressure tap has a trigger in the area of the trigger clip, it is attached by a screw and an adjustment screw to the rod that passes through the upper hole. With the help of screws, the projectile handle is attached to the rod. The upper part of the sturgeon is dressed in a braid, the lower part of which is stretched on the handle of the braid, the upper part is attached to the adjusting screw [1].

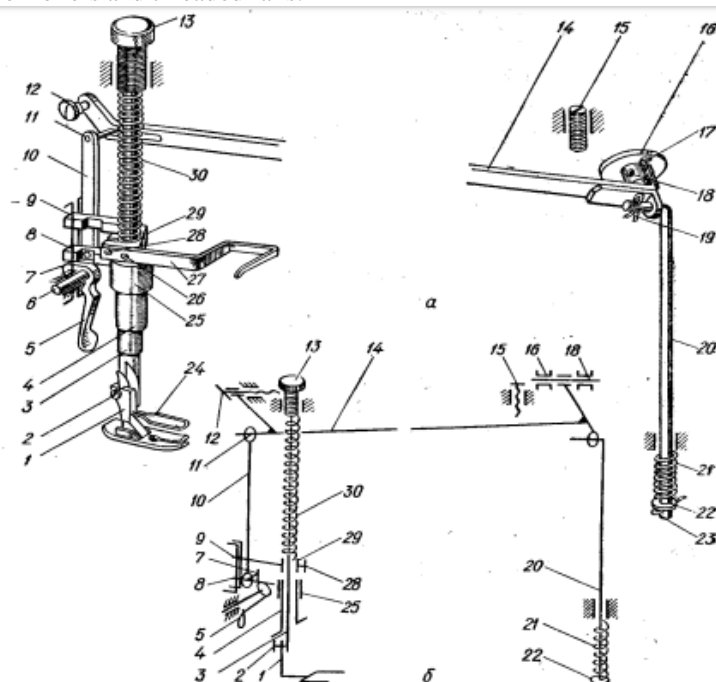
The disadvantage of this design is considered inadequate damping of trigger and sturgeon vibrations that occur when changing the thickness and structure of sewing materials, the impact strength of the rail, as well as inconsistency of rotating elements on the sewing machine.

### **302-4-206-type of sewing machine company " Zinger"**

In order to raise and lower the trigger, two devices are used that move the hand and foot on the machine. The holder, made of wire that protects the seam fingers from needle penetration, is attached to the sturgeon 24 with a 1-screw 2-pin swivel trigger, which is 3 bars. Sterjen moves 3 in 4 in 4 in this bushing the 25 hronstein are loosely clad, while his 8 finger is inserted into the Wedge in front of the machine. Sterjen moves 3 in 4 in 4 in this bushing the 25 hronstein are loosely clad, while his 8 finger is inserted into the Wedge in front of the machine. Using a screw 28 to C 3, the hook holder 29 is attached, while its finger 9 inserts a Wedge on the front of the machine that holds the trigger 1 with sterjen 3 from turning around the arrows. The arrow 6 richaga 5, which raises the trigger manually, is dressed, the finger of the bracket 25 is adjacent to the surface of the Cam 8 richaga 5. The regulator screw 13 brzhina 30 brzhina holder, clad in a rod, rises to 29. The hook holder is attached to the thread with a screw 26 by 29, the angle of the guide 27. Through the lever, which is made of a turtle and the axis of the desktop, the turtle rises 20, turning the lever 14 in the opposite direction to the clock shaft. The link rises to 10, lifts the trigger through the bracket 25 and zsuzhin tutkich 29. When the padalgin press stops, the spring 30 lowers the trigger down, and the spring 21 returns the link to the hook position. The angle of rotation of the Lever 14 is limited by the screw 15. The pressure of the trigger on the material is regulated by a screw 13: when it turns, the pressure on the trigger increases. The upper lift of the trigger 1 relative to the needle plate is adjusted by pushing the hook holder 28 vertically forward after releasing the screw 29. 45 if the hook is lowered down the holder, the trigger will rise higher. The position of the trigger hole relative to the line of action of the needle is adjusted by turning the sturgeon 28 after releasing the screw 3. 45 if the hook is lowered down the holder, the trigger will rise higher. The position of the trigger hole relative to the line of action of the needle is adjusted by turning the sturgeon 28 after releasing the screw 3. In systems of two orders, it is provided by a threaded header and a vibrating movable needle, or by upper and lower reapers. Single-mode systems are configured using a Reykjavik gear, differential, or pinion. In systems of three orders, the gas oscillation is driven by a movable needle and upper and lower

gear reapers. There are also sewing machines mechanisms that pull or measure the rollers on the top of the drapery and the leading bottom of the drapery. The bottom moves the vibration through the platform of the machine 8. With the help of two elbow screws, a Cam 15 is attached to the shaft 17, to which the rocker 20 is stretched under the action of the procina. The rocker arm 20 is attached to the embankment of the machine platform by means of a knee screw 23, and the screw 22 is attached to the vibrating movable shaft 26 by means of a tightening screw 21. Using a pull screw 26, a holder 24 is attached to the valve tip 25 in the head, the lower gasket 8 is inserted into the hole on the upper side and the knee is attached with a screw 10. When the Cam 15 is hit, the rocker 20 rotates in a vertical plane. After releasing the two Cam screws 8, the head is adjusted by turning the shaft, so that the tip of the plunger 15 reaches the needle in time. In the lower part of the bun, it is necessary to ensure that the needle is 2 mm higher than the lowest position. The distance between the tip of the needle and the tip of the plunger 8 to 0.02-0.05 mm, as well as the position of the tip of the plunger relative to the needle eye, is adjusted by turning the plunger after releasing the screw 10 or by pressing its arrow 46, or by turning the holder.

When sewing knitwear, a two- pronged differential mexanizm is used. In some cases, as a result of different coefficient of friction between the trigger material and the gear wheel, the upper and lower layers of the material are silo- insulated relative to each other. This situation may be caused by the fact that the thickness of the thread relative to the material is recognized correctly. There are also sewing machines where upper and lower toothed slats are used to eliminate sanding of finishing layers. The process of rubbing leather products and dense materials in sewing machines is provided by the participation of rollers and threaded rails.



**Fig -1. 302-4206-in the company "Zinger" duty sewing machine handle trigger**

**A) Structural diagram; B) Structural diagram**

**B)**

The disadvantage of this design is also considered to be the fact that due to the amount of inertia of the system, there is not enough reduction in the vibrations of the trigger and sturgeon in the vertical direction. This leads to uneven friction of suture materials, along with thread breakage, Bahya-throw and other defects.

The clamping machine has a structural clamping cartridge in the clamping trigger handle of the mechanism's clamping push design, the two upper and lower parts of which consist of a siljidigan joint: to increase the ease of use of the machine, and also increase the rigidity and service life top coil that is fastened to the upper coil and the lower part of the rod that is attached to the top coil with the top part of the rod, the hardness of the top of the coil is below or equal. It should be noted that to eliminate the effect of the upper turn, the tool is made in the form of a suspended chain, which includes a sliding ring with a beveled sturgeon and a Cam, so the chain sturgeon is tightly combined with its upper part with the machine body (author 's license no). 1668506, bul. from Wikipedia, the free encyclopedia.

The main drawback of this trigger handle is the complexity of the design, as well as low rigidity in operation. So it has a trigger cartridge and a screw axis hole, while they are also [edit].

Changing the thickness and structure of sewing materials, as well as the inability to reduce the amplitude of the trigger vibrations in the vertical direction, taking into account the overall vibration of the machine due to inconsistency of the masses, is also considered a disadvantage of the existing design.

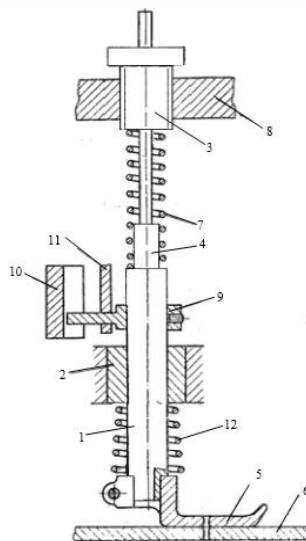
As a prototype, the design was adopted in accordance with [1].

The object of the invention is to provide the necessary cushioning of vertical vibrations of the tensioner pedal, thereby achieving a uniform pull of the cross-linked materials, reducing thread breakage and unsuccessful sewing.

The solution to this problem is achieved by improving the clamping mechanism of the sewing machine with the installation of an additional conical roller.

The essence of the proposed design of the clamping machine with gaskets pressure plate clamping mechanism release handle is that the handle has a trigger, mounted to stergene, which passes through the screw hole and the adjusting screw, the handle is attached to the handle with the screws to stergene, the upper part of sturgeon is attached to clad conical shock-absorbing coil installed coil. The design allows for the necessary absorption of trigger vibrations in the vertical direction, reduces thread breakage and spindle ejection.

The design is explained in the drawing, here (Fig -2) in the section shows the General scheme of clamping the trigger handle of the sliding mechanism of the finisher sewing machine.



**Fig -2.**

The device consists of 2 bushings and 3 adjustment screws of 1 kernel passing through the hole. Sturgeon 1 pressure trigger 5 is pressed, this needle plate 6 is stretched. The master turtle is hard pressed to 9 kernel 1, and the routers move to 10, while the turtle serves to handle the trigger through 11. The upper part of the rod 1 is put on pru 7, the lower part of pru 1 is stretched on pru 4, the upper part is traced to the adjusting screw 3. Between the directional bushing 2 and the clamping trigger 5, a conical shock absorber coil is installed on the rod 1-12.

**The device works in the following order.** After the material to be stitched is placed under the clamping trigger 5, the necessary pressure is applied to the materials using the adjusting screw 3 (not shown in the figure) based on the coil clamp 4, which acts on the rod 1 in the clamping tool 7. When the material is pushed out by the threaded rail (not shown in the figure), another force acts on the material and, accordingly, on the clamping trigger 5. Given the fact that the impact strength of a jagged Reagan is variable in the sliding cycle of materials, bonds are stretched to 7, and conical ones to 12. Based on the constancy of brucina 12, the hardness of brucina 12 will be a variable value. With an increase in the vibration amplitude of the tensile trigger 5, the hardness of the conical trigger 12 also increases, and at the same time the magnitude of the concussion along the vertical of the trigger 5 also decreases. With increasing deformation of the strength 12, its hardness also increases, that is, the greater the impact force, the less the deformation of the strength 12. This provides the necessary fluctuations in the depreciation of the trigger 5. This will reduce the smooth sliding of the suture material, break the threads and throw out the seams. This will reduce the smooth sliding of the suture material, break the threads and throw out the seams.



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Preferably, if the tray pressure on the gauze, and for sewing machines, the tray pressure on the material is regulated. In order to get a high-quality wrapper and the specified length of the wrapper was formed, it will be necessary to provide high pressure on the usual finish, while for knitting, it is necessary to reduce the pressure so that the material does not form. Pressure in Electromechanical machines is provided by a special regulator for adjusting the voltage of a special coil and, accordingly, the pressure on the trigger finisher. In complex machines controlled by a computer, an automatic pressure regulator and a special regulator are sometimes installed so that it does not change. There is no need to install a pressure regulator in machines equipped with a device for ejecting gas from the upper side. The upper sliding mechanism ensures a high quality only quickly of chibigoku. The designers also took care of sewing a very thick material – the trigger can be raised by a maximum of 12 mm.

Semi-automatic machines the same manual control methods, such as taking parts, joining them together, stopping the machine, lifting the trigger, scraping the thread, removing parts that are stuck, are often used in repetitive preparatory operations, when processing garments to some length and detail.

The machine is a crank- and -rod needle mechanism that can not only move vertically, but also tilt to the cross section of the machine platform; again, it has a centrally-tubular rotary Shuttle, which is equipped with a multi-stranded threaded hammer-fence. The material is driven only by a push- pull trigger that moves along the length of the machine platform. The knife cuts the hole of the ISM after the ISM is made. When the upper thread is detached, the knife automatically stops cutting the hole in the hole. In order to keep the parts of the machine mechanism during the stop from cracking, the automatic separator has a device that reduces the speed of the main shaft at the end of the ring Assembly. And the edge of the upper thread is located at the bottom of the platform.

And the edge of the upper thread is located at the bottom of the platform. The material is placed under the trigger on the slat of the sliding mechanism made of this material. When the right pedal is pressed, the machine starts, the needle moves only vertically, the bar is pushed across the platform along with the triggers, and when the needle is inserted eight times, seven carcasses are pressed. After the needle is inserted eight times, the wrapping of the carcass begins. The material is pushed along the platform. In addition, after each needle injection, the material is pushed to the right side for 1/12 of the puncture. At the end of the wrap, the machine stops automatically, although the needle is inserted in three punctures. When the left pedal is pressed, the trigger is lifted and the rope is shaved off at the bottom of the platform.

When preparing a large puncture, when preparing this puncture, the needle only moves vertically, the material is pushed through the platform, when the needle is inserted 13 times, 12 carcasses are lowered into the sleeve.

Intermediate errors in the carcass serve to make the delicacy crumbly. When wrapping the carcass, the material is pushed along the entire length of the machine platform. Also, after each move with the needle, press 1/26 of the puncture on the right side. The machine will automatically stop after three strokes at the end of the winding, and when the left pedal is pressed, the triggers will rise and the thread will break. Some companies offer special devices for automatically tying the top thread, and the thread to the tube can be filled through a needle, so there are some machines in which the needle automatically stops working. In order to make it easier to spread the gauze, a special device was developed – a slider with a double transmission. Some install it on the machine, while others produce it as an additional trigger that is used in individual situations. In order to make it easier to spread the gauze, a special device was developed – a slider with a double transmission. There are also machines that do not need to pull the thread up – this is done by the machine itself, as in the case of the first stitch. Some machines also have trigger points that can be rotated manually or even automatically. In order to support new students, one of the firms came up with a "Tailor's adviser", which was released in the car body: they determine the necessary adjustment operations for basic sewing operations on different finishes. Cooking technology is so advanced that it is not only not required, but also impossible to lubricate on some machines. The introduction of electronics into the design followed the possibilities of the overlock: many adjustments are made automatically, while those made on the side of the seamstress herself are displayed on the information display of the machine.

Differential material transfer makes it easier to work with knitwear. The abundance of additional triggers allows you to perform even more operations. All light boxes are manufactured in Asian countries.

## II. CONCLUSION

The sewing machine mechanism for pushing gauze has a clamping trigger with a long clamping trigger, it is attached to the sturgeon, which passes through the screw and the hole of the adjusting screw, the needle handle is attached to the sturgeon, the upper part is attached to the needle handle, the lower part is attached to the cone-shaped shock absorber, installed and examined.



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