

Fig X. Flat spring contact.

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There was a problem to create an assemblage, including the elastic spring providing certain pressure upon contact. Due to this, transfer of an electric current from contact 5 to contact 2, and then - to a conductor 3 of circuit cables. It was necessary to fasten the spring on a frame 4 of assemblage. For the detail, manufacturing the way of cold stamping was used. The technologist, working above the drawing, made development and cut out it in a metal tape. The waste of material was 59%. It was not possible to receive more economic cutting. Workers had prepared full industrial equipment and begun manufacturing process. Now, how to improve design of detail? Let us analyze a role of each element of detail and by results of the analysis, we shall try to make improvement of elements to remove disadvantages. A purpose of detail is to transfer an electric current from contact of an anchor to a circuit cable of the device. There are certain requirements to it: the spring should provide the necessary pressure upon contact to be steady in operation, strongly fixed on the frame. Thus, the circuit cable should be conveniently soldered to a detail. It is possible to allocate the basic and auxiliary elements of spring by applying single-eaten analysis.



Fig. X. Constructive elements of flat spring contact.

Number of constructive element	Element	Group
1.	Aperture ø4	basic
2.	Distance 38	basic
3.	Aperture ø2	basic
4.	Distance 19	basic
5.	Distance 16,5	basic
6.	Bend of spring 10	basic
7.	Net section of spring (5 x 0,4 mm)	basic
8.	Soldering blade with aperture ø1,5	basic
9.	Rest of elements	auxiliary

## Table X. Constructive elements division on groups

For providing of material economy, it is reasonable having a new constructive solution of the auxiliary elements, allowing reducing a step of stamp and the charge of material. The step of stamp is lead down to minimum - 7 mm; waste of material is lead down to 7.5%.



Fig. X. Decrease of metal wastes at punching by change design of spring contact.