

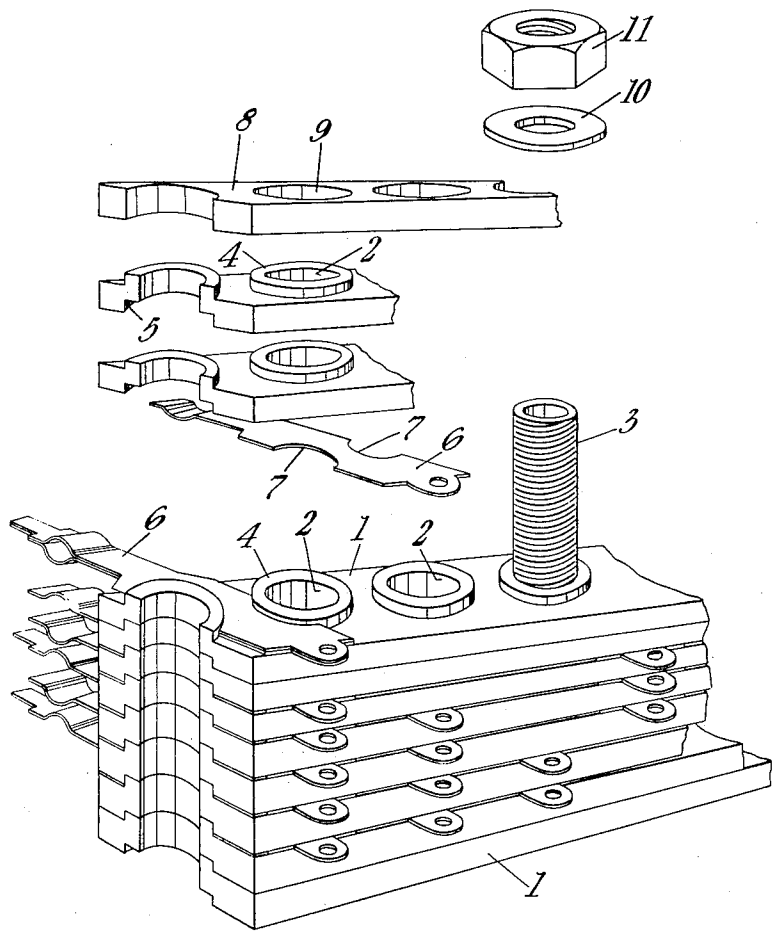
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SWITCH CONTACT ASSEMBLIES

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SWITCH CONTACT ASSEMBLIES

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4 Claims. (Cl. 200-166)

This invention relates to switch contact assemblies of the kind wherein the switch contacts in the form of resilient strips are located between layers of electrically insulated material which are clamped together, and has been devised with a view to expediting and facilitating the fabrication of such assemblies.

According to the present invention, in a switch contact assembly of this kind each insulating layer is formed on one side with a series of projections and on the other side with a series of complementary recesses, the contact strips being shaped so as to be positively located between adjacent projections in the same layer.

Conveniently and in a preferred form of the invention, which is illustrated in the accompanying part fragmentary perspective drawing, each insulating layer 1 is formed with a series of longitudinally arranged perforations 2 adapted to receive bolts 3 for clamping a number of such layers together. Each such perforation, which extends through the layer, is encircled on one side of the latter by a projecting annulus 4 and on the other side by a complementary recess 5 and when a plurality of the layers are stacked upon one another these projections 4 and recesses 5 are engaged with one another to lock the assembly together.

The switch contact strips 6 have arcuate or semicircular indentations 7 in their respective side edges and these indentations engage respectively with two adjacent annular projections 4 in the same layer so that the contact strip 6 is positively located. The thickness of the contact strips 6 is less than the depth of the annular projections or recesses so that when the layers are stacked upon one another and clamped together by means of bolts 3, or the equivalent, passed through some or each of the aligned perforations, the contact strips are firmly held between adjacent layers 1.

The topmost insulating layer 8 is not formed with projections and recesses like the others but instead has openings 9 which can slide upon the annular projections 4 of the adjacent insulating layer. The drawing also shows a washer 10 which threads on the bolt and is clamped against the top layer 8 by a nut 11.

By use of insulating layers and metallic contact strips as above described, banks of switch contacts may easily and quickly be fabricated to suit any particular switching circuit requirements, whilst ensuring that the contact strips are positively held in their required positions.

I claim:

1. Switch contact assembly comprising a plurality of contact strips disposed between layers of insulating material, each of said insulating layers being formed on one side with a plurality of circular projections, and on the

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other side with a plurality of complementary recesses, and each of said contact strips having part circular notches in their side edges which engage respectively with two of said circular projections which are disposed adjacent to one another in the same insulating layer whereby the contact strips in the assembly are positively located in alignment with one another by the circular projections on said insulating layers.

2. Switch contact assembly comprising a plurality of contact strips interleaved between layers of insulating material, each of said insulating layers being provided with a plurality of apertures, and being formed on one side with a plurality of annular projections surrounding said apertures, and on the other side with a plurality of complementary recesses, and each of said contact strips having part circular notches in their side edges engaging respectively with two of said annular projections which are disposed adjacent to one another in the same insulating layer whereby the contact strips in the assembly are positively located in alignment with one another by the annular projections on said insulating layers.

3. Switch contact assembly comprising a plurality of contact strips interleaved between layers of insulating material, each of said layers being provided with a plurality of apertures for receiving clamping members for securing the insulating layers together, and being formed on one side with a plurality of annular projections surrounding said apertures, and on the other side with a plurality of complementary recesses, and each of said contact strips having part circular notches in their side edges engaging respectively with two of said annular projections which are disposed adjacent to one another in the same insulating layer whereby the contact strips in the assembly are positively located in alignment with one another by the annular projections on said insulating layers.

4. Switch contact assembly comprising a plurality of contact strips interleaved between layers of insulating material, each of said insulating layers being provided with a plurality of apertures and being formed on one side with a plurality of annular projections surrounding said apertures, and on the other side with a plurality of complementary recesses also surrounding said apertures, a plurality of clamping bolts passing through said apertures for securing said insulating layers and said contact strips together into an assembly, and each of said contact strips having semi-circular notches in their side edges engaging respectively with two of said annular projections which are disposed adjacent to one another in the same insulating layer whereby the contact strips in the assembly are positively located in alignment with one another by the annular projections on said insulating layers.

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