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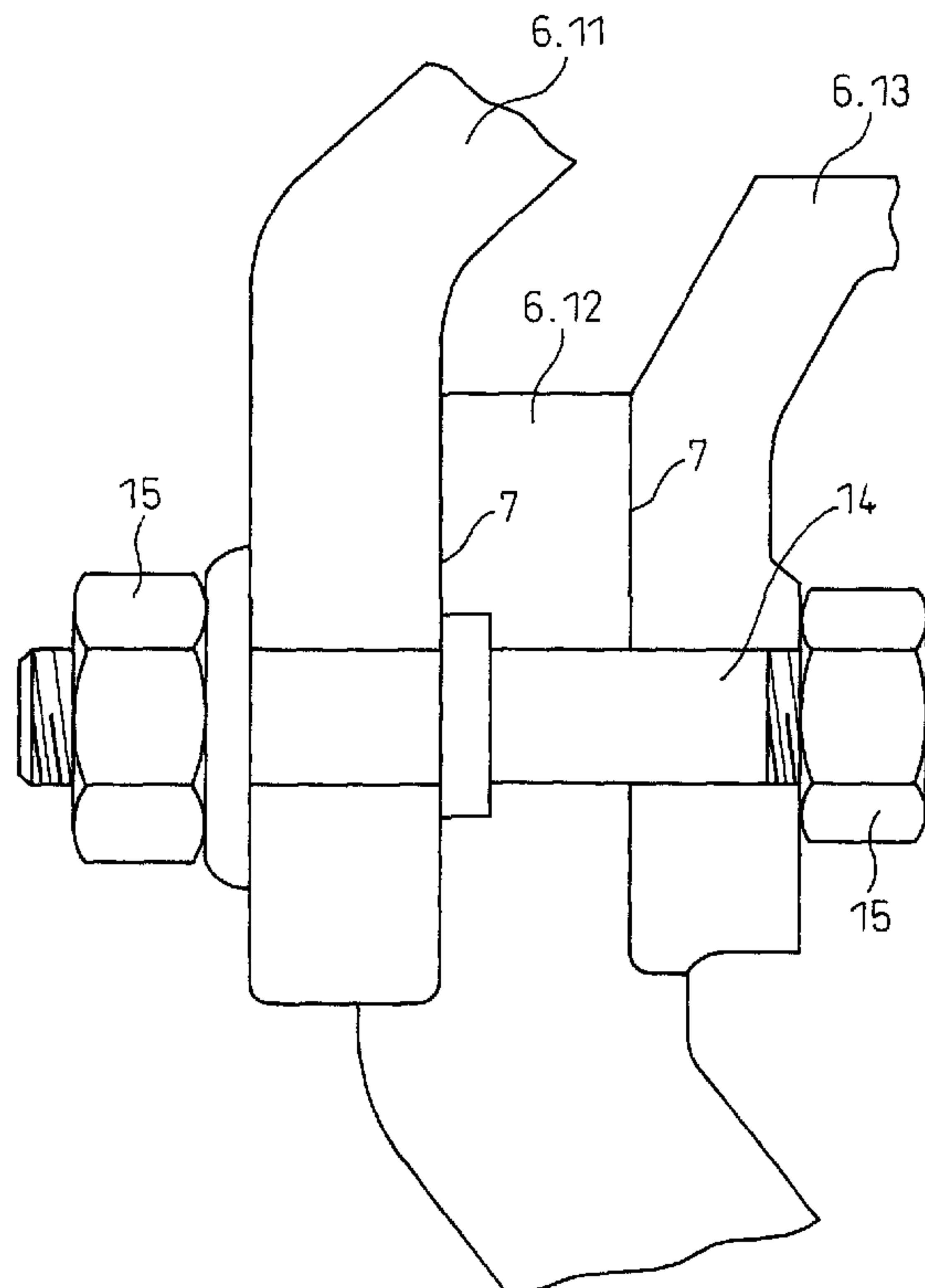
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(54) **Titre : UN ELEMENT ESPACEUR SERVANT A REDUIRE L'USURE DE CONTACT ET STRUCTURE DE FIXATION EMPLOYANT L'ELEMENT ESPACEUR**
(54) **Title: A SPACER MEMBER FOR REDUCING FRETTING WEAR AND FASTENED STRUCTURES USING THE SPACER MEMBER**



(57) **Abrésumé/Abstract:**

The present invention relates to a spacer member for reducing fretting wear and fastened structures using the spacer member, furthermore, the present invention provides a spacer member sandwiched between contact surfaces of contact materials subject

(57) Abrégé(suite)/Abstract(continued):

to abrasion and suffering from wear and provided with sliding and vibrating surfaces characterized in that the sliding or vibrating surfaces of the spacer member have a higher hardness than at least one of the contact surfaces of the first contact material and the second contact material and the sliding or vibrating surfaces of the spacer member have a lower coefficient of friction and a higher flatness than at least one of the contact surfaces of the first contact material and the second contact material, whereby the sliding or vibrating surfaces of the spacer member do not easily wear down the contact surfaces of the contact materials.

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ABSTRACT

The present invention relates to a spacer member for reducing fretting wear and fastened structures using the spacer member, furthermore, the present invention provides a spacer member sandwiched between contact surfaces of contact materials subject to abrasion and suffering from wear and provided with sliding and vibrating surfaces characterized in that the sliding or vibrating surfaces of the spacer member have a higher hardness than at least one of the contact surfaces of the first contact material and the second contact material and the sliding or vibrating surfaces of the spacer member have a lower coefficient of friction and a higher flatness than at least one of the contact surfaces of the first contact material and the second contact material, whereby the sliding or vibrating surfaces of the spacer member do not easily wear down the contact surfaces of the contact materials.

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DESCRIPTION

A SPACER MEMBER FOR REDUCING FRETTING WEAR AND FASTENED
STRUCTURES USING THE SPACER MEMBER

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Technical Field

The present invention relates to a spacer member for reducing fretting wear and fastened structures using a spacer member. Furthermore, specifically the present
10 invention relates to a spacer member reducing abrasion at one structure or both structures occurring due to rubbing when component structures slide or vibrate with respect to each other. Further, the present invention relates to fastened structures using a spacer member at the sliding
15 and vibrating surfaces of the structures.

Background Art

Fretting wear is one type of wear. This fretting wear indicates the wear when sliding or vibrating
20 surfaces of fastened parts of a structures abrade due to fine vibration of the sliding or vibrating surfaces of the structures in the state where the sliding or vibrating surfaces of the structures continuously receive fine vibration while receiving pressure. Therefore, it is
25 difficult to judge the state of advance of this fretting wear from the appearance of these structures. Further, due to the differences in the environments in which the fastened parts of these structures are placed, the degree of wear of the fretting wear often differs. Usually,
30 fastened parts of structures are retightened based on the state of use of the structures, but fretting wear has little effect. Depending on the state of advance of fretting wear of structures, this leads to the structures themselves fracturing.

35 Locations of structures susceptible to fretting wear are locations where the structures are pressed against each other by a strong pressure, that is, sliding or

