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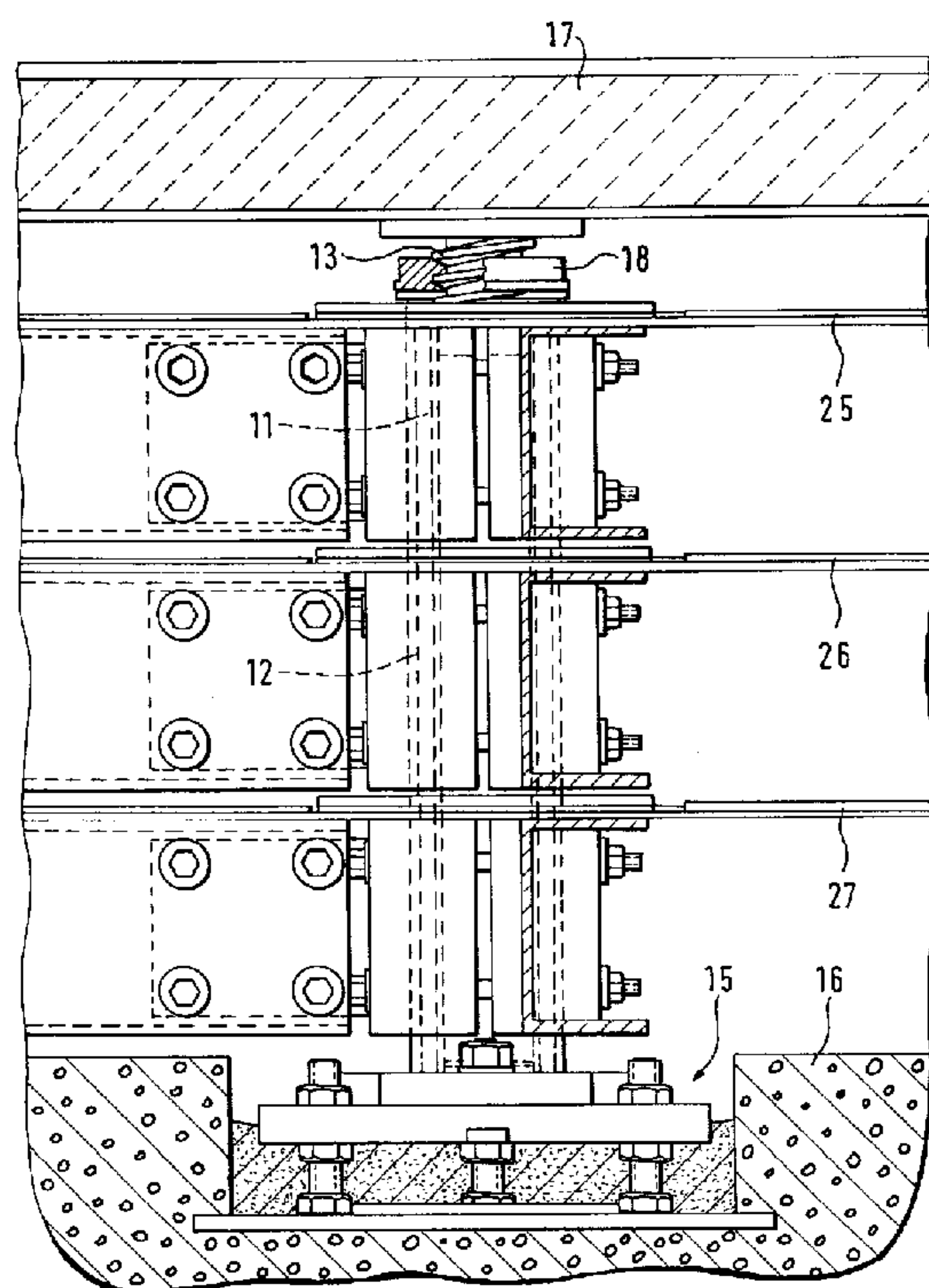
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(54) **SYSTEME DE PILIERS DE SOUTIEN POUR PIECE BLINDEE  
MAGNETIQUEMENT**

(54) **SUPPORT PILLAR SYSTEM FOR A MAGNETICALLY-  
SHIELDED ROOM**



(57) A support pillar system for a magnetically-shielded room includes several support pillars, each support pillar including a nested structure formed by a first structure and a second structure surrounding the first structure. The upper end of the first structure has a threaded part, and a fastening member provided with a thread and disposed about the threaded part. The shielding structure of the magnetically-shielded room is attached to the second structure of the support pillar, whereby the floor of the room is supported on the upper end of the first structure. When the member provided with a thread is tightened in a locking position, it locks the first structure and the second structure together, whereby the vibration of the floor is transmitted to the shielding structure and the shield vibrates substantially in synchronization with the vibration of the floor of the room. When the member is threaded into an open, unlocked position, the locking of the second structure is released vis-a-vis the first structure, whereby the inner room is allowed to vibrate, irrespective of the vibration of the other shield structures, and hence, the potential vibration of the room is not transmitted to the shielding structures.

## ABSTRACT

A support pillar system for a magnetically-shielded room includes several support pillars, each support pillar including a nested structure formed by a first structure and a second structure surrounding the first structure. The upper end of the first structure has a threaded part, and a fastening member provided with a thread and disposed about the threaded part. The shielding structure of the magnetically-shielded room is attached to the second structure of the support pillar, whereby the floor of the room is supported on the upper end of the first structure. When the member provided with a thread is tightened in a locking position, it locks the first structure and the second structure together, whereby the vibration of the floor is transmitted to the shielding structure and the shield vibrates substantially in synchronization with the vibration of the floor of the room. When the member is threaded into an open, unlocked position, the locking of the second structure is released vis-a-vis the first structure, whereby the inner room is allowed to vibrate, irrespective of the vibration of the other shield structures, and hence, the potential vibration of the room is not transmitted to the shielding structures.

## Support Pillar System For a Magnetically-Shielded Room

The present invention relates to a support pillar system for a magnetically-shielded room.

For providing an interference-shielded space, the function of the structures used to house the space can be to prevent penetration of external electromagnetic energy into the shielded space or also to limit the electromagnetic energy within a space surrounded by the structure by preventing leakage of an interfering field into the surroundings. Structures of this type are known in the art and they are generally used for shielding sensitive structures against electromagnetic radiation and for enabling measurements free of radio frequency interferences, e.g., in industries employing data transmission and high frequency technology, in research, and, e.g., in hospitals. Irrespective of the use of the shielded space, the most poorly absorbing part in the shielding is usually formed by the contact point between a door, window, hatch or equivalent element to be opened for access into the shielded space and the fixed structure.

To avoid the deterioration of the shielding properties of the door, the electric contact of the moving part of the door and the door frame, and the redundancy path, when shielding against low-frequency magnetic field, is required to be as continuous as possible and correspond to the







































