The invention is an improvement in yielding connections between interior sub-dividing walls designed to compensate for changes in dimensions in buildings caused by settling, vibrations, and wind away. In normal building construction interior partitions, or sub-dividing walls are formed with a central layer of hollow tile and this is covered at the sides by plaster. The tile and plaster are finished evenly against the surfaces of the outer walls, interior columns, floors, and ceilings, and when there is any movement whatever which causes variations in the distances between the surfaces of the fixed or permanent walls, and the floors, and ceilings, the interior or sub-dividing walls must compress or expand, and in the common type of wall, this is impossible so that these walls crack.

In normal low type of buildings the cracking of the walls only occurs during the first year or so after the building is constructed, as the variations in the dimensions result from settling of the building only; however, in the taller or skyscraper type of building there is continual cracking resulting from variations in distances caused by wind sway and vibrations; and, therefore, it has been found that it is essential to provide some form of a yielding joint or connection between all interior partitions and sub-dividing walls and the fixed or permanent walls, floors, and ceilings.

It is also necessary to provide some form of a yielding joint or connection that is substantially invisible as any form of open space, border, or visible joint is objectionable in first class building construction.

This invention, therefore, an improvement over my prior co-pending application with the Serial Number 669,465 in that the relative positions of the over-lapping metallic plates are reversed so that the edge of the plate outside is comparatively close to the surface of the wall or ceiling against which the partition is constructed, and as the metal is comparatively thin the remaining space may be substantially filled with paint so that it may not be observed and even if it is visible it will only consist of a light line a short distance from the adjoining surface.

The object of the invention is, therefore, to improve the yielding joint disclosed in my prior application so that the connection between the outer surfaces does not protrude beyond the surfaces of the wall or partition, is substantially in the corner, and in which the plaster may be worked up to the member forming the outer surface of the joint.

And a still further object is to provide an im-provement in yielding joints in which the complete joint may be formed by two pieces of material and which is also of a simple and economical construction.

With these ends in view the invention embodies a yielding joint formed with a channel shaped member secured to the surfaces of permanent walls, columns, and ceilings by anchor bolts, and another substantially channel shaped member with grooves formed in the ends thereof adapted to telescope over the ends or flanges of the former member and permanently secured to the edges of the wall or partition. The ends of the latter member may be lined with felt or a similar material to prevent direct contact between the two metallic members.

Other features and advantages of the invention will appear from the following description taken in connection with the drawing, wherein:

Figure 1 is a sectional view showing the general arrangement of the parts forming the joint.

Figure 2 is a similar view showing the method of placing the felt in the joint as it is assembled and also showing an alternate construction of the metal attached to the edges of the partition.

Figure 3 is a similar view showing another alternate construction in which the spring or resilient members are formed from the material at the edge of the partition.

Figure 4 is a similar section showing another alternate construction in which a combination of resilient material and spring members formed from the material of the joint is used.

Figure 5 is a similar section showing separate members forming the part of the joint that is placed against the permanent wall.

Figure 6 is a similar section showing side plates used on the ends of the joint members to cover the space between the members.

Figure 7 is a section similar to that shown in Figure 5 showing a resilient member of a different type between the parts of the joint.

In the drawing the device is shown as it may be made wherein numeral 1 indicates the fixed member which is attached to the fixed or permanent wall, column, or ceiling, numeral 2 the member formed at the edge of the sub-dividing wall or partition and numeral 3 a strip of felt that may be used between the members.

The member 1 is preferably made channel shaped and may be made of steel or any material and the material may be of any size or thickness. The length of the flanges 4 and 5 at the ends thereof may also be more or less than that shown as the length will depend upon the amount of...
clearance desired. Spring members 6 may be stamped from the web or back of the member 1 as shown in Figure 1, however, it will be understood that these members may also be attached to the web or back of the member as shown in Figure 4. It will also be understood that spring members of any other type or description may be used. The members 1 may be placed against the surface of a wall, or ceiling, as shown in Figure 1 in which the member 1 is placed against the surface of the member 7 and held by a back bolt 8 which extends thru the plaster and into the tile or framework 9 of the wall.

It will also be understood that this member may be formed in two angle shaped sections 10 and 11 as shown in Figures 5, 6, and 7 and these may be held to the wall by anchor bolts 12 or by any means. When the surface of the wall is uneven it is preferred to use the two members as shown in Figure 5 as by using the two members it is possible to line them up and compensate for unevenness of the wall. This member or these members may also be of any other shape or design and may be connected or separated or arranged in any manner.

The member 2 is also made substantially channel shaped with flanges 13 and 14 at the ends which are formed with recesses 15 and 16 therein, into which the recesses 4 and 5 of the member 1 extend as shown. The width of the recesses 15 and 16 may be slightly greater than the width of the flanges 4 and 5 and felt strips 3 may be inserted therein to prevent engagement of the metal parts with which will eliminate rubbing or squeaking in these joints. It will also be understood that these joints may be formed in any other manner and may be of any other design. The member 2 may also be continuous across the end of the wall or may be made in two parts, 17 and 18 as shown in Figure 7 so that they are only attached to the corners of the wall. These members may also be made as shown in Figure 2, in which one side of the wall is shown and the member indicated by the number 19. The inner end of this member is bent outward against the surface of the tile 20 which forms the central part of the wall so that it may be held between the plaster 21 and the wall. The inner end of the member 19, which is indicated by the numeral 22 may be provided with a point 23 which may be driven into the tile and it may also be held by a spike 24 which may be driven thru the member 22 and into the tile. It will be understood that this member may be held by any other means and in any other manner.

In the design shown in Figure 3 spring members 25 are formed from the member 2 instead of the member 1 as shown in Figure 1 and it will be understood that these members may be formed from either of the members 1 or 2, or attached to the members, or formed in any manner and of any shape or design. It will also be understood that any other means may be used for providing a resilient connection between the end or edge of the partition and the surface of the permanent wall and also that the spring members may be used in combination with rubber, cork, or any resilient or yielding material as shown in Figure 4 in which spring members 26 and 27 are used in combination. It will also be noted that a resilient or yielding pad of any similar material may be used without the spring fingers as shown in Figures 2, 5, 6, and 7, in which the pad is indicated by the numerals 28 and 29. The pad may also be of any shape or design and may be formed in a continuous strip or inserted only at intervals as may be desired.

In the design shown in Figure 6 a member 30 is used in place of the member 2 and this is provided with flanges 31, having small flanges 32 at their outer ends, and these are formed to provide a recess 33 into which the outwardly extending flanges or ends of the members attached to the surface of the permanent wall may extend and which the flanges or ends are provided with plates 34 that cover the recesses 33. These plates may be of any material and may be of any color or painted with the wall and it will be appreciated that they may be comparatively thin so that they will not be objectionable. These plates may also be made of different designs for different types of walls or any other means may be used to cover the open edges at the yielding joint.

It will be understood that the plates may be used in combination with the angle members as shown in Figure 6, however, it will also be understood that these plates may be used with the member 1 as shown in Figure 1 as they may be attached to the outer surfaces of the ends thereof, the same as they are attached to the members 10 and 11.

It will be understood that other changes may be made without departing from the spirit of the invention. One of which changes may be in the use of other means for forming recesses or openings at the edges of a tile partition into which flanges projecting from the surface of an abutting wall may extend, another may be in the use of other means for deadening the sound or providing packing between the moving parts of the joint and still another may be in the use of other means for attaching the respective parts to the permanent wall or partition.

The construction will be readily understood from the foregoing description. When constructing interior or sub-dividing walls or partitions in buildings of sufficient height to be affected by wind pressure, or any buildings in which distances between the surfaces of the walls and columns or the floors, and ceilings, may be subject to variations caused by distortions of any description in the building this joint may be used by attaching the member 1 to the surface of a permanent wall or column, fitting the member 2 over the flanges of the member 1 with felt, or the like or forming a padding between the members, thereby providing a padded telescoping joint. This joint may be applied to any wall or building and the member 1 may be as shown in Figure 1 or may be provided in two sections as shown in Figure 5, and the member or parts may be secured to the surface of the wall, column, or ceiling and the member 2 may then be placed over the flanges of the member 1 and the wall constructed with tile block forming the central part thereof and built up to the inner surface of the member 2. The sides thereof may then be covered with plaster, the outer surface of which will be finished flush with the outer surfaces of the ends of the member 2. Although this material is shown substantially thick for the drawing it will be understood that it is comparatively thin so that the edge on the outside of the members 4 and 5 will hardly be noticeable when painted over. This small space may be filled with paint or with putty or any material if desired. It will be noted that the spring members form space to
position the member 2 when building the wall and these members will also take up any movement of the permanent or stationary wall, column or ceiling so that wind sway or settling will not affect the partition and will be completely absorbed in the joint. In all steel partitions or walls having adjustable joints or any means there-in for compensating for changes in dimensions between permanent members of the building, noise or squeaks may be heard during a heavy wind or when the members are moving or subjected to variations or changes of any description.

Walls having connecting joints of this type may also prove very advantageous in earthquakes, or heavy vibrations caused by any means, as the telescoping joints may be made of any size so that they may absorb small or large variations.

It will be understood that the deadening felt may be omitted, if desired, or these parts may be lined with any other material to deaden the sound, or any other means may be used to eliminate sounds or squeaks in these joints.

The sub-dividing wall or partition is shown as being made of tile and plaster however, it will be understood that the wall may be made of a continuous material as shown in Figures 5 and 7 or any other type of wall may be used or the wall may be constructed of any material or by any means.

Having thus fully described the invention what I claim as new and desire to secure by Letters Patent, is:

1. A yielding wall joint comprising a channel shaped member positioned against and forming a part of a permanent wall, column, or ceiling, and a member having recesses adapted to telescope over the flanges of said channel shaped member positioned at the edges of and forming a part of an abutting sub-dividing wall or partition all of the parts of which stop short of said permanent wall.

2. In a wall joint as described in claim 1 resilient means spacing the two members.

3. A yielding wall joint as described in claim 1 resilient means spacing the two members.

4. In a wall joint as described in claim 1 strips of material for absorbing sound between the telescoping parts of the two members.

5. In a wall joint as described in claim 1 resilient means spacing the two members and means deadening sound between engaging parts of the two members.

6. In a wall joint as described in claim 1 means securing said channel shaped member to the permanent wall, column or ceiling.

7. In a wall joint as described in claim 1 a strip of felt inserted between both sides of flanges at the ends of said channel shaped member and the inner surface of the recesses of the partition members.

8. In a yielding joint for sub-dividing walls or partitions abutting surfaces of permanent walls, columns, or ceilings, outstanding members on the surfaces of said walls, columns or ceilings and over-lapping members on the surfaces of and forming parts of said abutting sub-dividing walls or partitions adapted to slide over the outer surfaces of said outstanding members, said sub-dividing walls or partitions and the overlapping parts thereof terminating short of the surface of said permanent walls permitting movement between the ends of said sub-dividing walls or partition and the surfaces of said permanent walls, column, or ceiling.

9. In a yielding joint as described in claim 8 sound absorption means between said over-lapping member and said outstanding members.

10. In a yielding joint as described in claim 8 spacing means between the ends of said sub-dividing walls or parts and the surfaces of said permanent walls, columns, or ceilings.

11. In a yielding joint as described in claim 8 yielding spacing means between the ends of said sub-dividing walls or partition and the surfaces of said permanent walls, columns, or ceilings.

12. A yielding wall joint as described in claim 8 in which the outer surface of said over-lapping means are flush with the surface of said sub-dividing walls or partitions.

13. In a yielding wall joint as described in claim 8 means securing said outstanding members to said permanent walls, columns, or ceilings.

JOHN McINERNEY.