(No Model.)

J. G. WILSON.

PARTITION, SHUTTER, AND THE LIKE.

No. 405,450. Patented June 18, 1889

Fig. 1.

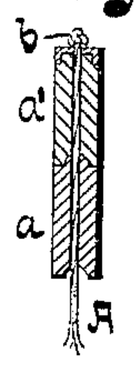

Fig. 2.

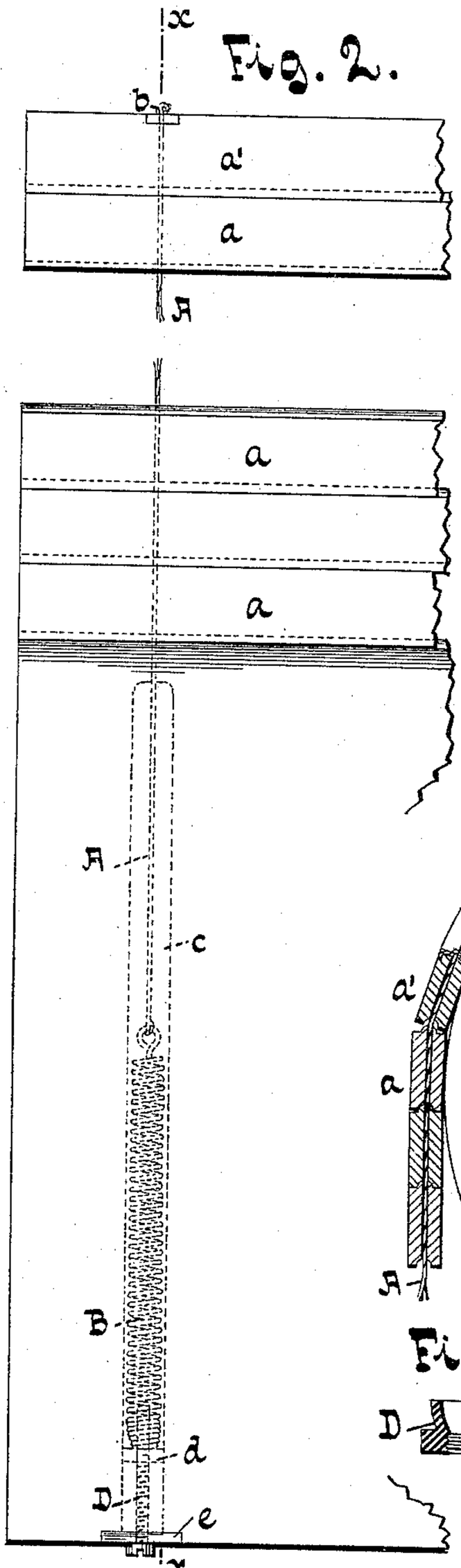

Fig. 3.

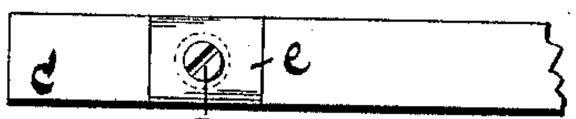

Fig. 6.

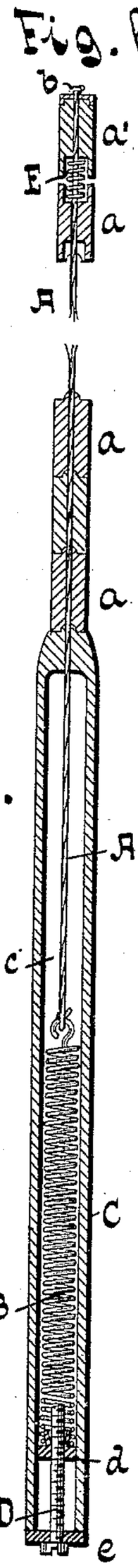

Fig. 5.

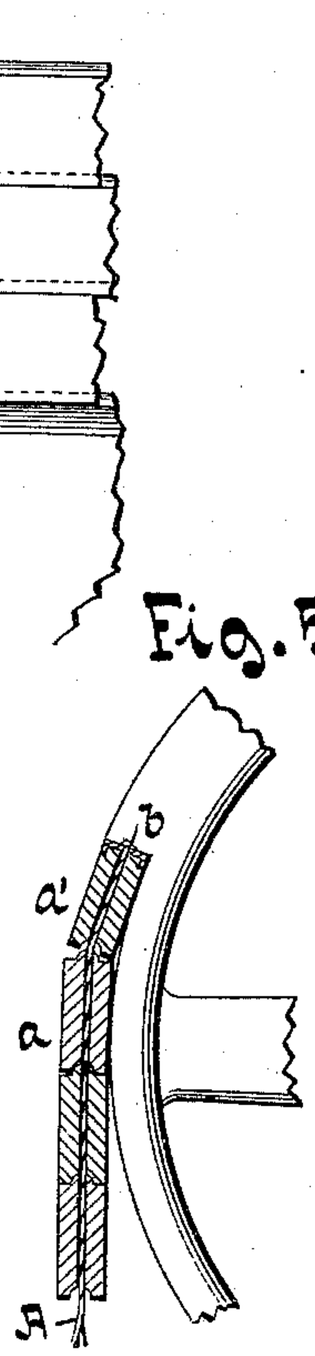

Fig. 4.

WITNESSES:

Chas. L. Hayes.

Edw. S. Galinger.

INVENTOR:

James G. Wilson.

BY

A. Faber du Faur Jr.

his ATTORNEY

UNITED STATES PATENT OFFICE.

JAMES G. WILSON, OF NEW YORK, N. Y.

PARTITION, SHUTTER, AND THE LIKE.

SPECIFICATION forming part of Letters Patent No. 405,450, dated June 18, 1889.

Application filed November 24, 1888. Serial No. 291,800. (No model.)

To all whom it may concern:

Be it known that I, JAMES G. WILSON, a subject of the Queen of Great Britain, and a resident of New York, in the county and State of New York, have invented new and useful Improvements in Partitions, Shutters, and the like, of which the following is a specification.

My invention relates to improvements in wooden structures or articles, such as shutters, blinds, partitions, mats, &c.; and it consists, essentially, in binding together slats of wood by means of cables, wires, or bands kept in tension by suitable springs, so as to permit shrinkage of the slats without causing a separation or opening of the joints. These tension cables, wires, or bands, by yielding, also permit the bending, coiling, or rolling up of the article so constructed.

The peculiar features of my invention as above briefly pointed out are more fully described in the following specification and claims, and illustrated in the accompanying drawings, in which—

Figure 1 represents a vertical section in the plane *x x*, Fig. 2, of a structure embodying my invention. Fig. 2 is a front view of the same, part being broken away. Fig. 3 is a bottom view of Fig. 2. Fig. 4 is a sectional elevation of a detail part. Fig. 5 is a sectional elevation showing the structure attached to a roller or pulley for coiling it up. Fig. 6 is a sectional elevation of a modification.

Similar letters indicate corresponding parts.

In the drawings, the letters *a a* designate slats of wood, which are threaded upon a series of suitable metallic cables or wires or bands A, distributed at proper intervals throughout the width of the structure. In the example illustrated I have shown cables A, which pass through the slats centrally with the thickness thereof, their upper extremities being attached at *b b* to the upper end slats *a'*, and their lower extremities to spiral springs B B, placed within suitable recesses *c* in the lower end slat or slats C. The lower ends of the springs B are affixed to the end slat C in any suitable manner. In this example I have shown them attached to nuts *d*, which are guided in the recesses and receive adjusting-screws D, having suitable bearings in metallic plates *e*, closing the recesses. By means of these adjusting-screws the tension of the cables A can be regulated at will. The cables A being under tension all the slats are held in close contact, edge to edge, the tendency of these tensional cables being to hold them in this position and to return them to their normal position whenever separated. When the slats shrink, which would cause a separation or opening of a joint or joints, the tensional cables are virtually decreased in length by the contraction of the springs to an extent corresponding to the total amount of shrinkage, thereby drawing the slats together.

When the structure is rolled or coiled up, as in the case of rolling partitions, shutters, or blinds, the alteration of length caused by the turning of the slats about their edges of contact, Fig. 5, is allowed for by the drawing apart of the springs, which increases the virtual length of the cables.

It is obvious that the cables may be held under tension by compressing the springs B B—for instance, by attaching the lower extremities of the cables to the lower end of the springs and attaching the latter to the upper parts of the recesses.

If desired, the springs B B can be placed in the upper end slat or slats and the lower extremities of the cables be attached to the lower end slat, or springs can be placed in both end slats and the extremities of the cables attached to said springs.

In Fig. 6 I have shown short spiral springs E E placed between two or more of the upper slats and surrounding the cables. These springs being under compression tend to force these slats apart, thereby aiding the springs B B in holding the remaining slats in close contact, edge to edge. These springs E E would be embodied only in rolling partitions or blinds where the top slats are not exposed to view. The slats are best provided with suitable interlocking tongues and grooves to hold the same parallel with each other and to give strength and stiffness to the structure.

By the arrangement above described I procure a perfectly noiseless and sound-proof partition or shutter.

What I claim as new, and desire to secure by Letters Patent, is—

1. A series of wooden slats threaded upon

cables, wires, or bands, combined with tension-producing springs, substantially as described.

2. A rolling partition or shutter composed of wooden slats threaded upon cables, wires, or bands, combined with tension-producing springs, and means for adjusting the tension of said springs, substantially as described.

3. The combination, with a series of wooden slats, of springs located in one of the end slats and cables, wires, or bands extending through the slats, the opposite extremities of said cables, wires, or bands being respectively attached to the springs and to the opposite end slat, substantially as described.

4. The combination, with a series of wooden slats threaded upon cables, wires, or bands, of springs attached to the extremities of the cables, and additional springs interposed between two or more of the slats, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two witnesses.

JAS. G. WILSON.

Witnesses:
A. FABER DU FAUR, JR.,
H. M. HOWE.