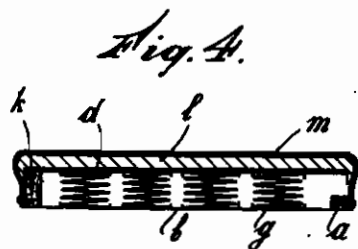
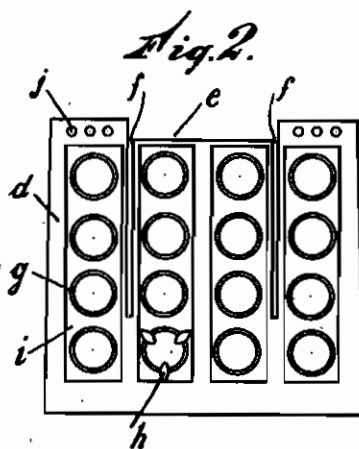
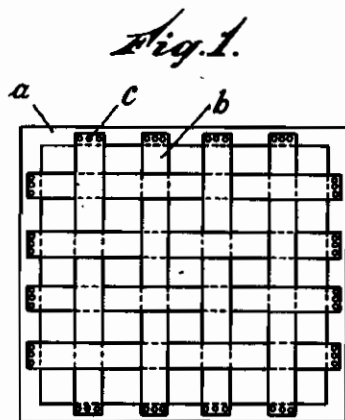


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OR THE LIKE FOR FURNITURE, AND SEATS, ETC.
MADE ACCORDING TO THE SAID METHOD
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METHOD OF MAKING RESILIENT SEATS, ARMS, BACKS OR THE LIKE FOR FURNI- TURE, AND SEATS, ETC., MADE ACCORD- ING TO THE SAID METHOD

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in the Alien Property Custodian

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This invention relates to a method of making spring seats and the like of the kind in which the resiliency of the seat is obtained by means of spiral springs provided in the said seat and also to furniture seats made according to the said method.

For upholstering a seat body a great many operations have been hitherto needed all of which operations are to be carried out by hand. These operations are the following ones: In the first place a number of bands of material perpendicular to each other are attached to the seat body; these are the so-called supporting straps. The spiral springs are then sewed fast to the said straps, after which the spiral springs are connected by means of rope in order to fix the same with regard to each other. For a further fixation of the outer springs a steel or bamboo frame is attached to the outer springs along the outer side of the said outer springs. After this a layer of canvas is stretched over the fixed springs, which layer is nailed to the body of the seat. On this canvas there is provided a stuffing consisting of "crin végétal" mixed with horsehair or other materials according to the quality of the seat to be made. A layer of stuffing cloth is stretched over this stuffing and held in place by cross-lines of stitching, after which some additional stuffing material is provided at the edges, in order to prevent the seat from growing too convex. After the outer edges have been closed by sewing, the edges where the additional stuffing material was introduced are often stitched through several times. On the surface which has grown a little concave on account of the additional stuffing at the edges, there is still applied a top stuffing in order to render the surface of the seat level. The upholstering material such as e. g. moquette or wool velvet is then stretched over the said final stuffing, which like the preceding coverings is nailed to the side edges of the seat frame.

The present invention has for its purpose to simplify these laborious operations and to provide a method for making a furniture seat or back in which the number of operations is greatly reduced, while providing besides a great saving of time, also a great saving of material.

According to the invention use is made of a flexible metal plate to which the springs of the seat are attached with one end. This has the great advantage that the operation of fixing the springs with regard to each other will no longer be needed, while moreover the flexible surface will keep the springs completely in their places, whereby a double layer of stuffing and the use

of two layers of material provided between the springs and the cover will be superfluous. In this manner the number of operations is greatly reduced. According to the invention the operations now will be the following ones: The straps are attached to the body of the seat, while the springs are secured to the loose metal plate. The metal plate with the springs is laid over the supporting straps and the springs are attached with their ends to the said straps. The metal plate is now screwed to the back of the seat body. After this a complete layer of stuffing is deposited on the metal plate. This layer of stuffing may consist e. g. of "crin végétal," horsehair, cotton, felt or the like. Finally the covering material is stretched over the stuffing layer and nailed to the seat body. The operation also with regard to the material required, is simplified in such a way that a saving of several decades of percents is obtained in the manufacture of furniture seats. A furniture seat according to the method of the invention consequently comprises a seat body the bottom of which is provided with supporting straps, spiral- or other springs attached to the said straps at one end and to a metal plate at the other end, the said metal plate being screwed to the seat body at the back of the piece of furniture, a layer of stuffing deposited on the metal plate and the covering material which is stretched over the stuffing and attached to the body of the seat.

Furniture seats according to the invention are suitable for chairs as well as for benches, sofas and the like.

In order to render the metal plate not only flexible as a whole but also in portions, the plate according to the invention may be slotted, the slots running in longitudinal direction of the seat.

A very simple manner of attaching the springs to the metal plate is obtained according to the invention by punching small tongues in the metal plate, which tongues are turned over the outer winding of the springs. In this manner the springs will be rigidly attached to the metal plate.

In order to prevent any troublesome squeaking or creaking of the seat, according to the invention strips of a suitable sound damping material may be applied between the springs and the metal plate.

It is often desirable to render the front edge of the seat higher than the rear edge, in order to prevent a downward inclination of the seat when some one sits down on the front edge or the front

portion of the seat. This might be done by stretching the covering material less taut at the front side, which would release the tension of the front springs, whereby the front edge would be urged upwardly. According to the invention, however, it will be advantageous to use springs that are longer at the front edge of the seat than those at the back and to keep the covering material tauter.

Sometimes it is advisable to render the surface of the seat convex. This may be accomplished by using a curved metal plate instead of a flat one. Since, however, metal plates that are curved in the right manner are considerably more expensive than flat plates, it is to be preferred according to the invention to have the springs at the front of the seat longer than those at the back and then to provide springs in the center of the seat that are longer than those at the front.

In this manner the surface after the covering has been stretched over the same, will become more or less convex, while at the same time the front edge will be higher than the rear edge.

The method according to the invention is illustrated in the drawing in which the different stages of the production process are represented and in which

Fig. 1 is a plan view of the bottom of a seat body with the straps attached thereto.

Fig. 2 is a plan view of a metal plate provided with slots and with the springs secured on the same, while strips of linen are provided as a sound damping material.

Fig. 3 is a section of a seat body and the metal plate with springs arranged on the same.

Fig. 4 is a section through a finished seat.

In Fig. 1 the seat body is denoted by *a*, on which the straps *b* are secured by means of nails *c*.

In Fig. 2 *d* represents a metal plate with a recess *e* and slots *f*. Springs *g* are secured on the same by folding tongues *h* over the outer winding of the said springs. This manner of securing the springs which is only indicated for one spring is the same for all of them. Sound damping strips *i* are provided between the springs and the metal plate. The plate in the next working step is screwed in the seat body by means of screws *k* which are passed through screw holes *l*. During this same operation the spiral springs *g* are sewed fast to the straps *b* (Fig. 3). Fig. 4 represents the finished seat. On the metal plate *d* there is provided a solid layer of stuffing material *l* consisting e. g. of "crin végétal", horse-hair, cotton or felt. Over this stuffing there is provided the final covering layer which does not get into touch with the metal as the stuffing is larger than the said metal plate, so that it is pressed over the edges of the plate.

It goes without saying that the straps and the feature of sewing the springs to the same are not essential; other ways and means might also be used for attaching the springs to the bottom of the seat body.

ANTHONIE STORY.