Dec. 6, 1932. J. KRONHEIM 1,890,090

CHAIR AND COUCH

Filed June 27, 1930

FIG. 1

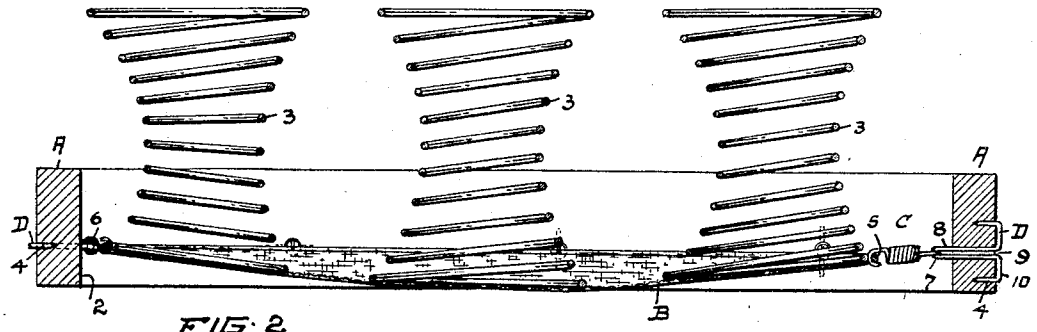


FIG. 2

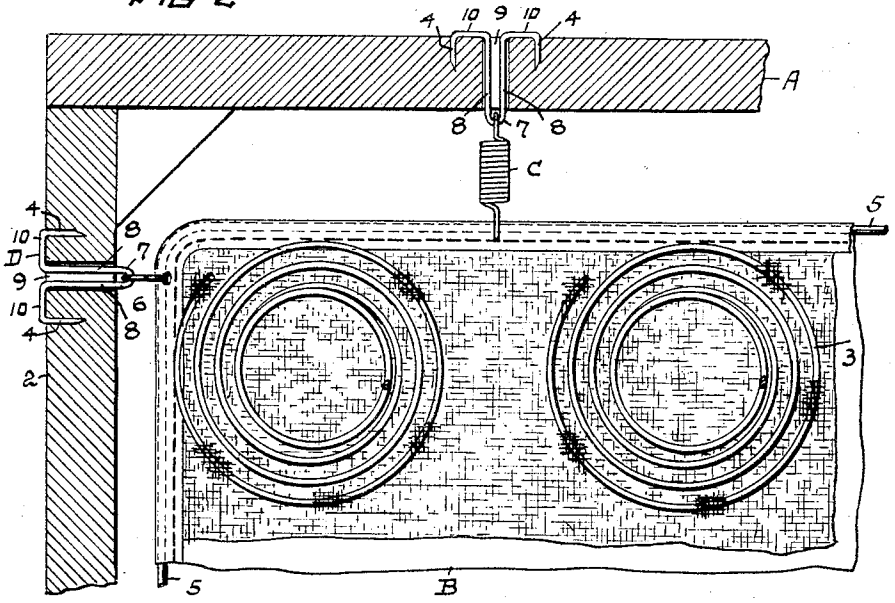


FIG. 4

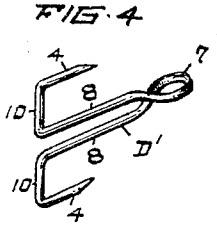


FIG. 3

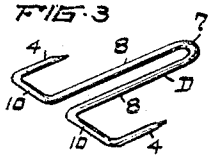
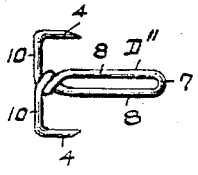


FIG. 5



INVENTOR

JACOB KRONHEIM

BY

Fisher, Moser & Moore.

ATTORNEY

Patented Dec. 6, 1932 1,890,090

UNITED STATES PATENT OFFICE

JACOB KRONHEIM, OF CLEVELAND, OHIO

CHAIR AND COUCH

Application filed June 27, 1930. Serial No. 464,189.

My invention relates to chairs and couches, and more particularly to connecting devices and means for attaching and supporting a yielding bottom within a chair or couch frame preliminary to upholstering the same. Briefly stated, my object is to provide attachment means made of wire, which may be readily inserted through openings in a wooden rail and then easily and safely driven into and interlocked with the rail, and when so attached to have a loop end exposed to permit a yieldable base or bottom member to be conveniently connected thereto and suspended in a stretched state between a pair of such rails or an open frame, all as hereinafter described and more particularly pointed out in the claim, and also as shown in the accompanying drawing, in which Fig. 1 is a sectional view of a chair frame containing a yielding bottom member and one form of attachment means embodying my invention, and Fig. 2 an enlarged plan and sectional view horizontally through one corner of the frame. Fig. 3 is a perspective view of one of the attachment devices, and Figs. 4 and 5, are similar views of a modified form thereof.

It is well known that couches and chairs usually comprise an open rectangular frame A made of wooden rails 2, and in one type of resilient seat or bottom now being made in that class of furniture a separate base member or flexible sheet B of textile fabric is provided to support a group of spiral springs 3. These springs are usually tied together and upholstered to complete the seat or yielding bottom for the chair or couch, and the base member or sheet B stretched and suspended in a yielding position within frame A by short helical springs C. In the present case, the structure also includes looped connecting devices D made of wire and formed with locking prongs 4.

The flexible base member B is made of webbing or a woven piece of fabric re-enforced at its border edges by wire 5 which is either hemmed in or sewed to the goods. The helical suspensory springs C are hooked to this border wire, although other suspensory means may be employed at the front rail, such as metal links or S-hooks 6 as delineated in Fig. 1. The suspensory means, whether links or springs, or both, are hooked or fastened to the rounded loop ends 7 of the wire connecting devices D, each of which are formed with straight parallel legs or main body portions 8—8 of a predetermined length, and preferably somewhat longer than the thickness of the rail to permit the loop end 7 to project beyond the inside face of the rail so that a link or helical spring may be connected easily and readily thereto. The parallel leg portions 8 are also made to lie quite closely together to permit them to be inserted through a relatively small opening 9 in the rail. Thus in practice the connecting devices are introduced into the rail openings from the front or outer side of the rail, so that the right-angular branches 10 of the device will overlap the front of the rail and permit the short pointed prongs or bent extremities 4 on the branches to penetrate the solid body of the rail. The prongs 4—4 are formed parallel with but spaced apart from the straight middle legs or main body portions 8—8 a substantial distance, and the prongs are made shorter than the main body portions 8—8 to permit the device to be easily inserted within a small opening in the rail and supported and guided by its longer looped end until the prongs are hammered and driven their full length into the rail. Obviously the teeth or prongs 4—4 on the branch portions 10—10 are easily caused to penetrate the wooden rail without splitting or weakening the rail, and when so fastened the loop end 7 extends beyond the inner face of the rail and is held against turning movement axially in the rail opening. The device may also be secured to the rail in either a horizontal or vertical plane, with the branch and prong portions lying in the same plane as the loop end, but where a narrow rail or other condition requires the prongs to be driven into the wood in a predetermined plane and it is desirable or necessary to have the loop end lie in another plane, say at right angles to the prongs, the parallel legs or main body portions 8—8 may be twisted to provide for that relationship of parts, as in the modified form of device D' delineated in Fig. 4. The parallel portions 8—8 may also be twisted relatively near the

outer or branching end of the device, for example as shown in device D'', Fig. 5, to effect a union between the branches 10, thus permitting the outer or branched end of the device to bridge the opening in the rail with re-enforcing result.

In summary, a wire connecting device constructed and formed as described enables an upholsterer to build and install a resilient or yielding bottom in a chair or couch rapidly and at a considerable saving in cost as compared with known practices, and the completed structure is firm and strong and very durable. However, should occasion require disassembly or replacement of parts the connecting devices may be readily removed and replaced without injury thereto or to the chair frame.

What I claim is:

A chair or couch frame, a yielding bottom supported within said frame, a series of openings in the rails of said frame, a series of wire connecting devices each extending freely through and substantially beyond one of said openings, and including a loop end and pointed bent extremities of substantial length adapted to seat against and interlock with the rails of said frame, said connecting devices having their loops close to the ends thereof twisted to have said loops and the bent extremities lie in different planes, and means to connect said bottom with said loop ends of said devices.

In testimony whereof I affix my signature.

JACOB KRONHEIM.