

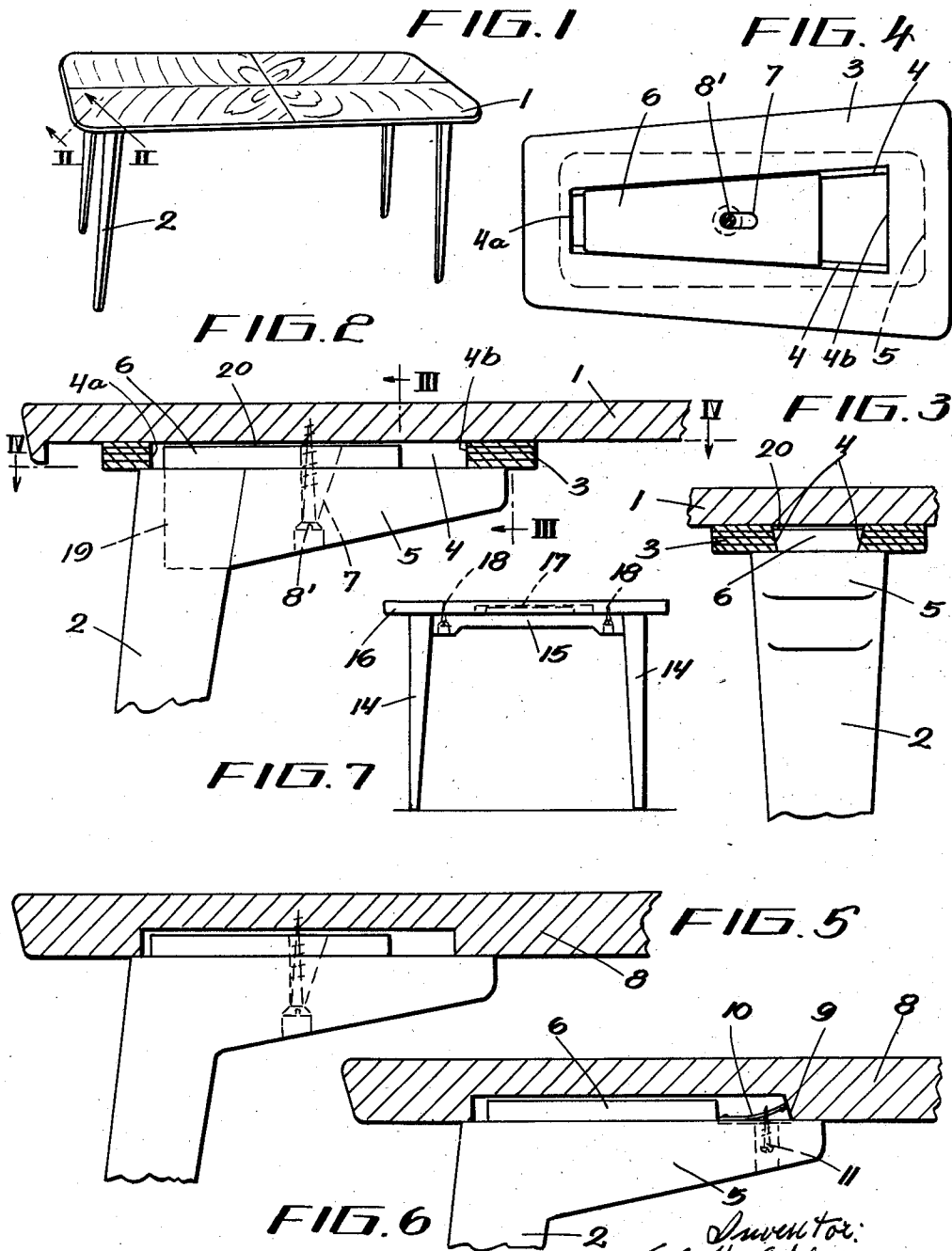
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LATERAL MOVING TABLE LEG FASTENER

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LATERAL MOVING TABLE LEG FASTENER

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The use of easily mountable and removable legs in furniture, especially tables, presents a great many advantages, especially during transport and storage of the furniture, since by removing the legs the furniture does not require as much space. Besides, the use of loose legs involves a great advantage for the manufacturer and the furniture-business, as will respect to tables, with storage of a few types of table-tops and legs; the manufacturer and the furniture-business can offer a great many different types of tables to the customer by various combinations of the stored types of table-tops and legs.

For this reason it has previously been proposed to make legs of furniture easily mountable and removable and the body part of a piece of furniture, e. g. a table-top, is provided with one or more grooves having converging backed-off side walls, whereas the legs belonging to the piece of furniture are provided with one or more wedges for dovetail engagement with respective grooves.

However, the known constructions of this type have several disadvantages. Among these there may be mentioned the following ones. The wedges are not securely fixed to the legs, the backed-off edges of the grooves are not supported in a way to ensure complete safety to the pressure exerted on the same by the wedges, and the constructions are of a nature which has made it impossible practically to use said constructions in furniture, upon which demands are made with respect to the aesthetical appearance thereof.

An essential object of the invention is therefore to provide a piece of furniture of the above-mentioned type, which is constructed in such a manner that the backed-off edges of the grooves are securely supported.

Another object of the invention is to provide for a sufficient connection between the fixing wedges and the legs, in furniture of the type in question.

A further object of the invention is to provide simple and reliable means for readjustment of the positions of the fixing wedges in the grooves upon a possible drying of the furniture wood.

Further advantages and objects of the invention will appear from the following description of some embodiments of the invention shown as examples only in the accompanying drawing. In the drawing:

Fig. 1 is a perspective view of a table according to the invention.

Fig. 2 is a vertical section taken along the line II—II in Fig. 1.

Figs. 3 and 4 are sections along the lines III—III and IV—IV, respectively, in Fig. 2.

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Figs. 5 and 6 similar to Fig. 2 show alternative embodiments of the invention.

Fig. 7 shows a modification of the invention.

The wooden table shown in Fig. 1 in the usual manner comprises a table-top 1 and four legs 2 which are easily mountably and removably fixed to the table-top. For mounting the legs there is for each leg a wooden plate 3 glued on to the underside of the table-top 1, in which plate there is provided a groove defined by four side walls 4, 4a and 4b, the two opposite walls 4 of which converge towards one end of the groove and towards the downward-facing mouth of the groove. At the upper end of each leg there is provided a laterally extending member 5 whose wood fibers extend in the longitudinal direction of the part and which at 19 is dovetailed into and glued to the leg 2. On the upper side of each member 5 there is provided an integral wedge 6 which is adapted for dovetail engagement with the side walls 4 of the plate 3. The grooves in the plate 3 and the wedge 6 are so dimensioned that the wedge can be introduced in the groove at its wider end, and engages the side walls 4 of the groove upon displacement of the leg and thus of the wedge towards the narrow end of the groove before the wedge bears against the end wall 4a at the narrow end of the groove. The member 5 has such a length that it completely covers the groove in the plate 3 (see the dot and dash line of Fig. 4) and presents an elongated hole 7 for a wood screw 8 which after fastening of the leg is screwed into the table-top for the purpose of preventing an inadvertent displacement of the wedge 6 towards the wide end of the groove. If the wood should dry after the fastening of the leg so that the wedge 6 is not securely clamped any longer between the groove walls 4, all one has to do is to untighten the screw 8 somewhat and to knock the wedge 6 into fixed engagement between the groove walls 4 (it will only be a displacement of some millimeters); whereafter the screw 8 is again tightened. The displacement of the wedge without having to remove the screw 8 completely from the table-top 1 is made possible by the elongated hole 7 which has its long dimension in the longitudinal direction of the wedge 6.

Member 5, when the leg 2 is fixed to the table-top, completely covers the groove of the plate 3 and there is obtained on one hand an aesthetically pleasing appearance and on the other hand the advantage that the edge portions of the plate 3 at the inclined side walls 4 of the groove are able to bear against the member 5 for withstanding the stresses exerted on the same by the wedge 6. Besides, it is to be observed that the height

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of the wedge 6 is less than the depth of the groove in the plate 3 so that there is formed a small clearance 20 between the upper side of the wedge and the under side of the table-top 1, whereby there is no risk for the wedge to press against the table-top with such a force, upon dimensional changes of the wood owing to changes of humidity, that the plate 3 is worked loose from the table-top, or the wedge or the plate is broken.

Instead of arranging the groove in a special plate 3 glued to the table-top 1, it is sometimes advantageous to provide the groove directly in the under side of the table-top 3, as is evident from Figs. 5 and 6. In the embodiment according to Fig. 5 the parts are, for the rest, of the same construction as described with reference to Figs. 1 to 4. In the embodiment according to Fig. 6 the wedge 6 is however fastened in another way than by means of a wood screw 8' in an elongated hole 7. Instead the transverse wall 9 at the wider end of the groove is here inclined in the longitudinal direction of the groove, as is apparent from Fig. 6, and on the member 5 of the leg 2 there is fixed a spring 10 the free end of which may be pressed against the inclined transverse wall 9 by means of a screw 11, so that the wedge 6 cannot be displaced towards the wider end of the groove. When the wood possibly dries, all that is necessary is to knock the wedge somewhat towards the narrow end of the groove and to tighten the screw 11 until the end of the spring 10 again bears against the inclined end wall 9.

A modification of the invention is shown in Fig. 7 and consists in that a leg pair 14 and an intermediate border member 15 are connected to a unity which may be easily removably fixed to a table-top 16 by means of a wedge 17 on the border member and by means of a groove of the kind described in the table-top. The wedge is held in fixed engagement with the groove by means of wood screws 18 which through holes in the border member are screwed into the table-top.

The invention must of course not be considered as limited to the embodiments described above and shown in the drawings, as several modifications can be made without departing from the spirit of the invention. It may be pointed out especially that the device according to the invention can be used for fixing legs on other furniture body portions than table-tops, such as cupboards, chair seats, etc. Instead of using one single wedge for fixing a leg, it is possible to use several wedges and corresponding grooves, although this is generally not necessary.

What I claim and desire to secure by Letters Patent is:

1. A piece of furniture comprising a body portion and legs supporting said body portion, side walls on said body portion defining a number of grooves, two opposite side walls of each groove converging towards one end of the groove and towards the downward facing mouth of the groove, wedges for dovetail engagement with said converging side walls of corresponding shape therewith, lateral projections on said legs carrying said wedges and wholly covering said mouth of each groove when said legs are attached to said body portion by engagement between said wedges and said converging side walls, one of said side walls of each groove at the wide end of the groove being inclined against the longitudinal direction of the groove, screws mounted on said lateral projections carrying said wedges and locking means comprising springs having an end thereof secured to said lateral projections and the other

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end thereof being pressed against said inclined side wall at the wide end of each groove by means of said screws whereby displacement of the wedges toward the wider end of said grooves is prevented.

2. A piece of furniture comprising a body portion and legs supporting said body portion, side walls on said body portion defining a number of grooves, two opposite straight side walls of each groove converging towards one end of the groove and towards the downward facing mouth of the groove, wedges for dovetail engagement with said converging side walls, said legs having lateral extensions at the top end thereof carrying said wedges and wholly covering said mouth of each groove and abutting said body portion along the margin of each groove when said legs are attached to said body portion by engagement between said wedges and said converging side walls, so as to support said converging side walls along their whole length through the material of said body portion against displacement under the influence of the wedge forces generated by said wedges, said lateral extensions carrying said wedges having tapered holes therein elongated in the longitudinal direction of said wedges toward the top edge thereof, locking screws projecting through said elongated holes into said body portion for locking said wedges in desired position between said converging side walls, said tapered holes permitting tightening connection between said wedges and said body portion without displacement of said screws from said body portion.

3. A piece of furniture comprising a body portion and legs supporting said body portion, a plurality of grooves formed in the underside of said body portion, two opposite straight side walls of each groove converging towards one end of the groove and towards the downward facing mouth of the groove, wedges for dovetail engagement with said converging side walls of corresponding shape therewith, said wedges having a height less than the depth of said grooves, said legs having lateral projections on the top edge thereof carrying said wedges and wholly covering said mouth of each groove and abutting said body portion along the margin of each groove when said legs are attached to said body portion by engagement between said wedges and said converging side walls, so as to support said converging side walls along their whole length through the material of said body portion against displacement under the influence of the wedge forces generated by said wedges.

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