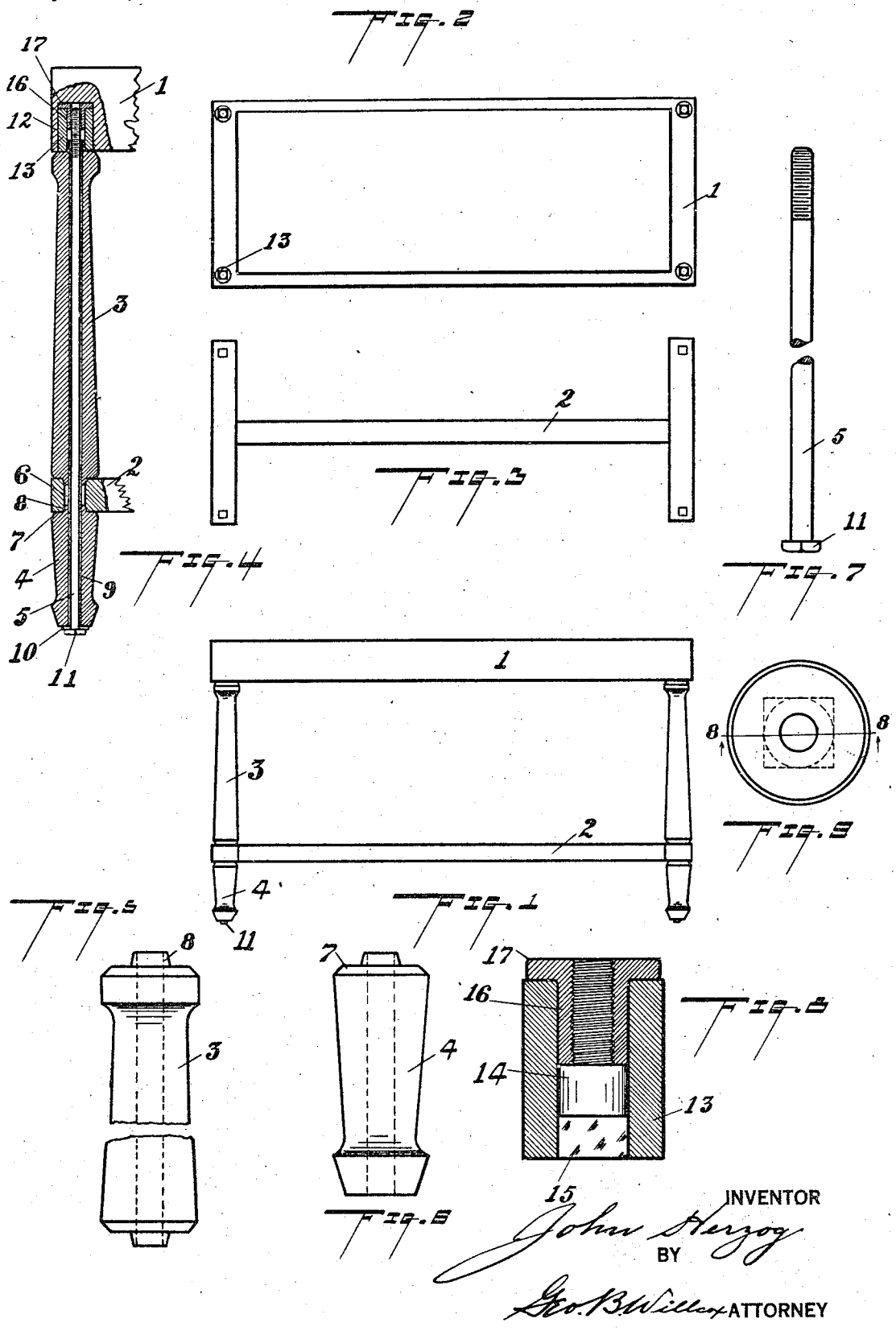
J. HERZOG.

KNOCKDOWN FURNITURE.

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1,286,629. Patented Dec. 3, 1918.



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1,286,629. Specification of Letters Patent. Patented Dec. 3, 1918.

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To all whom it may concern:

Be it known that I, JOHN HERZOG, a citizen of the United States, residing at Saginaw, in the county of Saginaw and State of Michigan, have invented certain new and useful Improvements in Knockdown Furniture; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to knock-down furniture, and the improvement pertains more particularly to certain constructions and combinations of parts of knock-down furniture, whereby the objects of my invention are attained.

These objects are first to provide a construction whereby the essential parts of the articles of furniture, that is, the body, legs and stretcher, may be easily and quickly assembled and taken apart and can be packed for shipment in small space and transported at low cost.

A further object is to enable certain parts, such as the legs, to be made interchangeable, so that legs of different designs may be substituted to produce articles of furniture of essentially different appearance. Such parts may be carried in stock as finished units, enabling the different designs to be made up as required, either at the factory, or by the dealer.

A still further object is to provide means for assembling the parts, so that if one part, as, for instance, the leg of a table, becomes damaged, only the damaged portion of the leg need be replaced, and that portion may be replaced by persons not skilled in the making or repair of furniture. Moreover, if one side of such a part becomes damaged, it may be taken off and replaced in such position that the damaged surface will not show.

A still further object is to so arrange means by which the parts are clamped together, that they will be firmly held in place and the structure will be of great strength at the corners, or legs, where the greatest strain usually occurs in handling or shipping assembled furniture.

My improvement still further includes an improved means for anchoring the tie bolt, by which the parts are held together.

With these and certain other objects in view, which will appear later in the specification, my invention consists in the devices described and claimed and the equivalents thereof.

In the drawings, Figure 1 is a side view of a piano bench assembled.

Fig. 2 is a bottom view of the bench seat.

Fig. 3 is a plan view of the stretcher.

Fig. 4 is a part longitudinal section of the bench leg assembled.

Fig. 5 is a side view, broken away, showing the upper leg section.

Fig. 6 is a side view of a lower leg section.

Fig. 7 is a detail of the tie bolt.

Fig. 8 is a longitudinal section of the bolt-anchoring device, the section being taken on line 8—8 of Fig. 9.

Fig. 9 is a top plan view of the bolt-anchoring device.

For purpose of illustration I have selected a piano bench, but it will be understood that the use of my improvement is not limited to piano benches, but may be applied to desks, dressers, pedestals, tables, or any other article of furniture.

In the drawings, 1 indicates the top of a piano bench, 2 the stretcher, 3 the upper section of the leg, 4 the lower leg section, and 5 the tie bolt by which these parts are clamped together.

The stretcher 2 is formed with transverse holes 6, preferably of rectangular cross section, and the ends of the leg sections are preferably formed with flat faces 7, from which project tenons 8, these tenons being rectangular in cross section and formed with tapered sides. A hole 9 extends through each of the leg sections. At the bottom of the lower leg section, a washer 10 may be placed to receive the pressure of the head 11 of the tie bolt 5. This head is preferably rounded on the bottom, to serve as a sliding shoe for the bench when casters are not used.

To firmly anchor the threaded end of the bolt in the member 1 a hole 12 is bored in the member and in this hole is inserted a plug 13 of wood or equivalent material. The plug is preferably cylindrical and has a central hole extending longitudinally through it. The upper part of this bore is preferably cylindrical, as at 14, and the lower part rectangular, as indicated at 15. In the upper cylindrical part of the bore of plug 13 is received an internally threaded plug 16 of metal. This plug is formed with a flange

17 resting on the upper end of the plug 13, the diameter of the flange being preferably slightly smaller than the external diameter of the plug.

To apply the anchoring device, the metal plug 16 is inserted in the wooden plug 13 and both plugs are forced into the hole 12 of the member 1, glue being used to securely anchor the wooden plug in the hole.

To assemble the legs, stringer and body, the upper leg section 3 is placed with its tenon 8 in the rectangular lower part 15 of the bore of plug 13. The tenon on the lower end of the leg section is inserted in the rectangular hole 6 of the stringer 2, and the lower leg section 4 is in like manner applied to the stringer 2. The bolt 5 is then passed through the central holes in the lower leg section, the opening in the stringer, and the upper leg section, and its upper end is firmly screwed into the internally threaded plug 16, thereby tightly drawing all of the assembled parts together and securely holding them in place.

The wooden plug 13 securely anchors the threaded plug 16 in place and forms a fastening that will not become displaced or work loose, and holds the parts correctly in line, even though a certain degree of shrinkage takes place while the article of furniture is in use.

As has been previously noted, the parts can be easily packed for shipment and assembled without the use of skilled labor, and parts can be carried in stock as units in a variety of different patterns, from which different designs of furniture may be made up as wanted.

If any part becomes damaged, it is only necessary to replace it with a similar part. For example, if the lower part of the leg of a piano bench is injured in shipment, it is only necessary to replace it with a new lower part, instead of having to return the entire piece of furniture to the factory for replacement of the damaged part by skilled labor. By carrying the parts in stock finished, it is not even necessary to re-finish the article of furniture after the repaired part has been put in place.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

In knock-down furniture, a top or body member formed with a hole therein, a cylindrical wooden plug formed with a hole extending longitudinally therethrough, the upper part of said bore of cylindrical cross section and the lower part of rectangular cross section, an internally threaded plug received in said cylindrical plug, a flange on said threaded plug resting on the upper end of said wooden plug, said wooden plug secured by adhesive to the inner wall of said hole, a leg section formed with a longitudinal hole therethrough, a tie bolt passing through the hole of said leg section, the upper end of said bolt threaded and screwed into said threaded plug.

In testimony whereof, I affix my signature in presence of two witnesses.

JOHN HERZOG.

Witnesses:
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