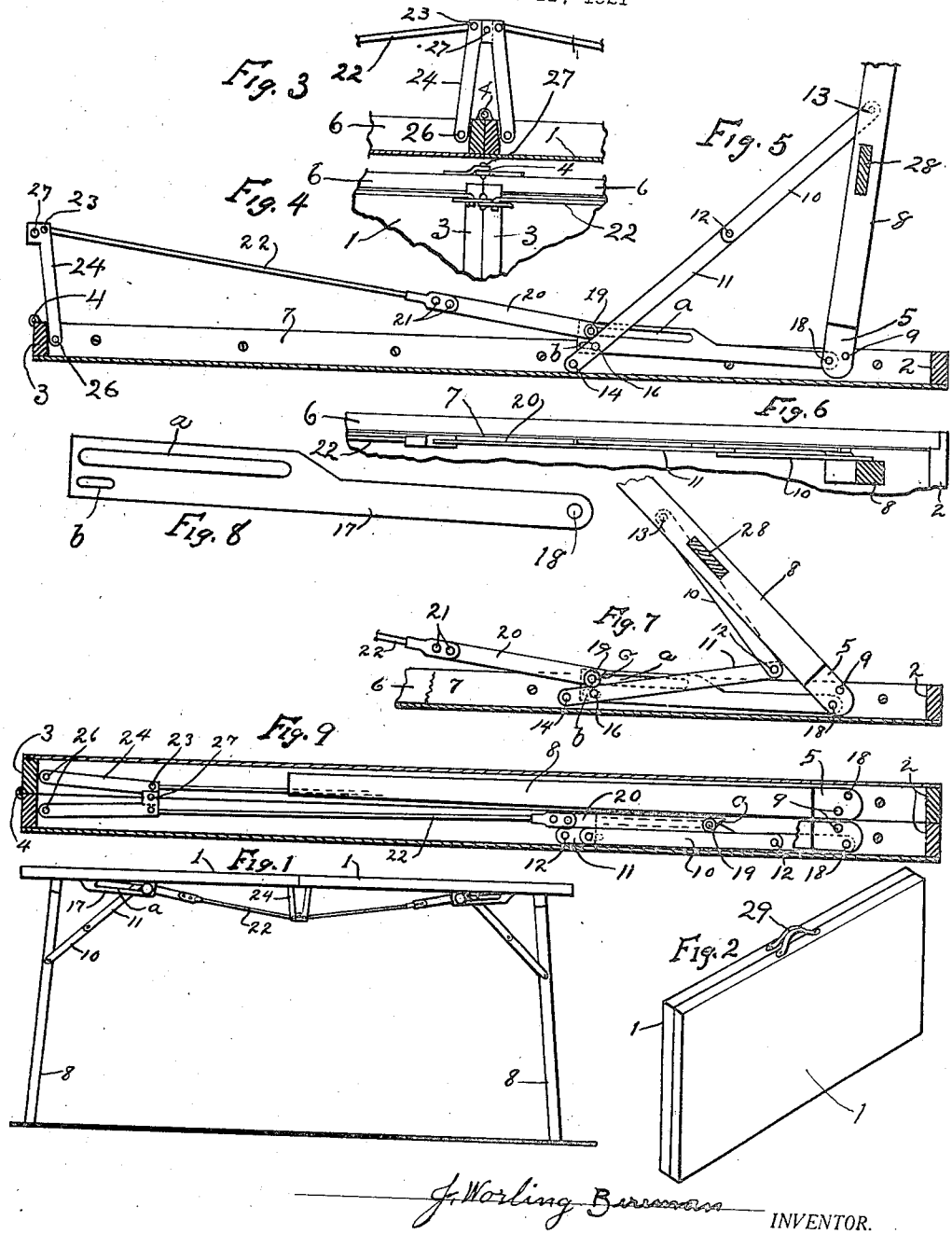
May 15, 1923.

1,455,066

J. W. BEREMAN

FOLDING TABLE

Filed Jan. 11, 1921



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Patented May 15, 1923. 1,455,066

UNITED STATES PATENT OFFICE.

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FOLDING TABLE.

Application filed January 11, 1921. Serial No. 436,495.

To all whom it may concern:

Be it known that I, JOHN WORLING BEREMAN, a citizen of the United States, and resident of Wichita, in the county of Sedgwick and State of Kansas, have invented certain new and useful Improvements in Folding Tables, of which the following is a full, clear, and exact description, such as will enable one skilled in the art to which it pertains to make and use the same.

This invention relates to folding tables, and more particularly to operating tables for osteopathic and massage work.

The objects of the invention are: to provide a table of the kind that may readily be folded and unfolded; that when in position for use shall have a firmness and rigidity equal to that of a non-folding table; to provide a table in which the legs shall be automatically folded against the top when the operator folds the halves of the table together; and finally, to provide a folding table that when folded, resembles a "sample case" and may conveniently be carried by handles provided on the table.

Reference is now had to the accompanying sheet of drawings, in which—

Fig. 1 shows in side elevation a table embodying the invention and set up in position for use;

Fig. 2 is a perspective of the table as folded for transportation;

Fig. 3 is a detail in elevation and section, of one pair of truss-rod links and contiguous parts;

Fig. 4 is a plan view of the same parts;

Fig. 5 is a detail of the inner face of one leg and its connected parts, the leg being in open position and the half of the table in longitudinal section, inverted;

Fig. 6 is a plan view of some of the parts shown by Fig. 5, the table leg being in section;

Fig. 7 is a detail similar to Fig. 5, showing the leg and its connecting links in partly folded positions;

Fig. 8 is a detail of one of the main slotted links, detached;

Fig. 9 is a longitudinal section of the table as fully folded, one leg being partly broken away to expose other parts.

Referring more in detail to the drawings:—

The table top is divided transversely into two equal sections, 1 and 1. Each section 1 comprises an outer-end crossbar 2, an inner-end crossbar 3, and the two longitudinal bars 6, one of which is shown in Fig. 6. Crossbars 3 of the two sections are pivotally connected by a pair of hinges 4, of any suitable design. Each longitudinal frame-bar 6 is lined with a metal strip 7, the full length thereof, to protect the wood of said bars 6 from abrasion by the metal links.

The upper end of each wooden table-leg 8 is provided with a metal butt 5 which is pivotally secured to the adjacent frame-bar 6 by a bolt or pin 9. For each leg 8 I provide an inclined metal brace comprising two similar members 10, 11, connected by a pivot 12. Member 10 is pivotally connected to bar 6 (and wear-strip 7) by a pin or bolt 14. Each brace member 11 is provided with an outwardly projecting stud 16.

A main slotted link 17 is disposed between brace member 11 and wear-strip 7. One end of link 17 is connected to the metal leg-butt 5 with a pivot-pin 18. The opposite end of said link is provided with two slots—a long slot *a* and a short slot *b*, both of which terminate near the end of the link. The short slot *b* receives and guides the above mentioned stud 16, carried by brace-member 11. The long slot *a* receives and guides a headed pin 19 mounted on the end of a truss-rod-member 20 which is secured by rivets 21 to a truss-rod 22. The inner end of rod 22 is pivoted by a hooked end 23 to one end of a strut 24, which is pivoted to the wear-strip 7 on a pin or bolt 26. A strut like 24 is provided for each of the four truss-rods, one for each leg of the table. Each strut 24 is connected pivotally to its companion strut by a pin or bolt 27, as shown on Figs. 3 and 4.

The outer end of each truss-rod member 20 has its free end cut obliquely as shown at *c* on Fig. 7. This oblique face contacts with the lower edge of a brace-member 11, as shown, when the leg 8 is extended. Thus, the combined truss structure, including the bar 20, forms a rigid brace for the brace 10—11, whereby each leg 8 will be held firmly in relation to the top when the table is in use. The truss-rods and struts also have their usual function with respect to the weight supported by the median portion of the table.

To fold up the table, it is placed upside down, and either end thereof is lifted. This movement causes the four truss-rods 22 to

slide toward the ends of the table, the pins 19 sliding in the slots *a*. Links 17 are held against motion away from the table top by the studs 16 held by the respective brace-members 11; hence each member 11 is forced down by the end *c* of bar 20, flexing each brace at pivot 12; this movement draws in the leg 8 thru the brace-member 10. When the part 20 has advanced as far as is shown in Fig. 7, the brace 10—11 and leg 8 have been flexed to the angle there shown. From this point on, the legs will drop by gravity. When the table is fully folded, the working parts will be disposed as shown by Fig. 9.

This automatic folding of the table legs is a great convenience to the operator.

Each pair of legs 8 is provided with a suitable cross-brace 28, the same being seen only in section.

When folded together, this table is conveniently carried by means of a pair of handles, 29, permanently mounted on the sections.

Where built for some uses, the table top will of course be padded, but it is thought unnecessary to represent such padding in the drawings.

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

1. In a folding table: a recessed top section, a leg pivoted thereon to fold into the recess, an inclined brace having a break-joint, a main link pivoted to the butt of said leg near the leg-pivot, means to restrain said link from swinging away from the table top, a truss-rod having one end engaging said brace by contact, means on said link to guide the engaging end of the truss-rod, and a strut pivoted on the inner end of the top section in line with the truss-rod; said truss-rod being pivotally connected to the free end of said strut, and said inclined brace connecting said leg with the top section of the table; substantially as described.

2. In a folding table, two hingedly-connected recessed top sections, a pair of struts pivotally connected to the inner ends of the sections on transverse axes the outer ends of said struts being pivotally connected together; a pair of truss-rods connected respectively to the struts adjacent the said pivotal connection between the struts; a table leg pivoted to each top section, a toggle brace connecting each leg with the top section, a link connected with each leg and extending toward the truss-rod, means to restrain said links, means to guide the outer ends of the truss-rods in lines parallel to the table top, the ends of the truss-rods engaging and abutting respective members of said braces when the table legs are fully extended, to prevent the flexing of said braces; substantially as described.

3. In a folding table, a recessed top section, a table leg pivoted thereon, a main link pivoted to the butt of said leg near the leg-pivot, said link having two slots therein; a toggle brace connecting said leg to the top section, a stud on the inner member of said brace, taking into one of said slots, a truss-rod, a pin thereon, playing in the other slot in said link, the end of said truss-rod engaging said brace member to actuate same in one direction and to form a stop in the other, and a strut pivoted on the inner end of the top section, the free end of said strut being pivotally connected to said truss-rod; substantially as described.

4. In a folding table, a pair hingedly-connected, recessed top sections, a pair of legs pivoted on the corners of each section, a toggle brace connecting each leg to its top section, two pairs of struts pivotally mounted at the inner ends of the top sections in alinement with the table legs, pivotal connections between the struts of each pair, four truss-rods pivotally connected with the respective struts and extending toward the respective legs, and means whereby the truss-rods will flex said braces when the table is being folded from open position, for initiating an automatic folding motion of the legs; substantially as described.

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Witnesses:
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