

No. 764,359.

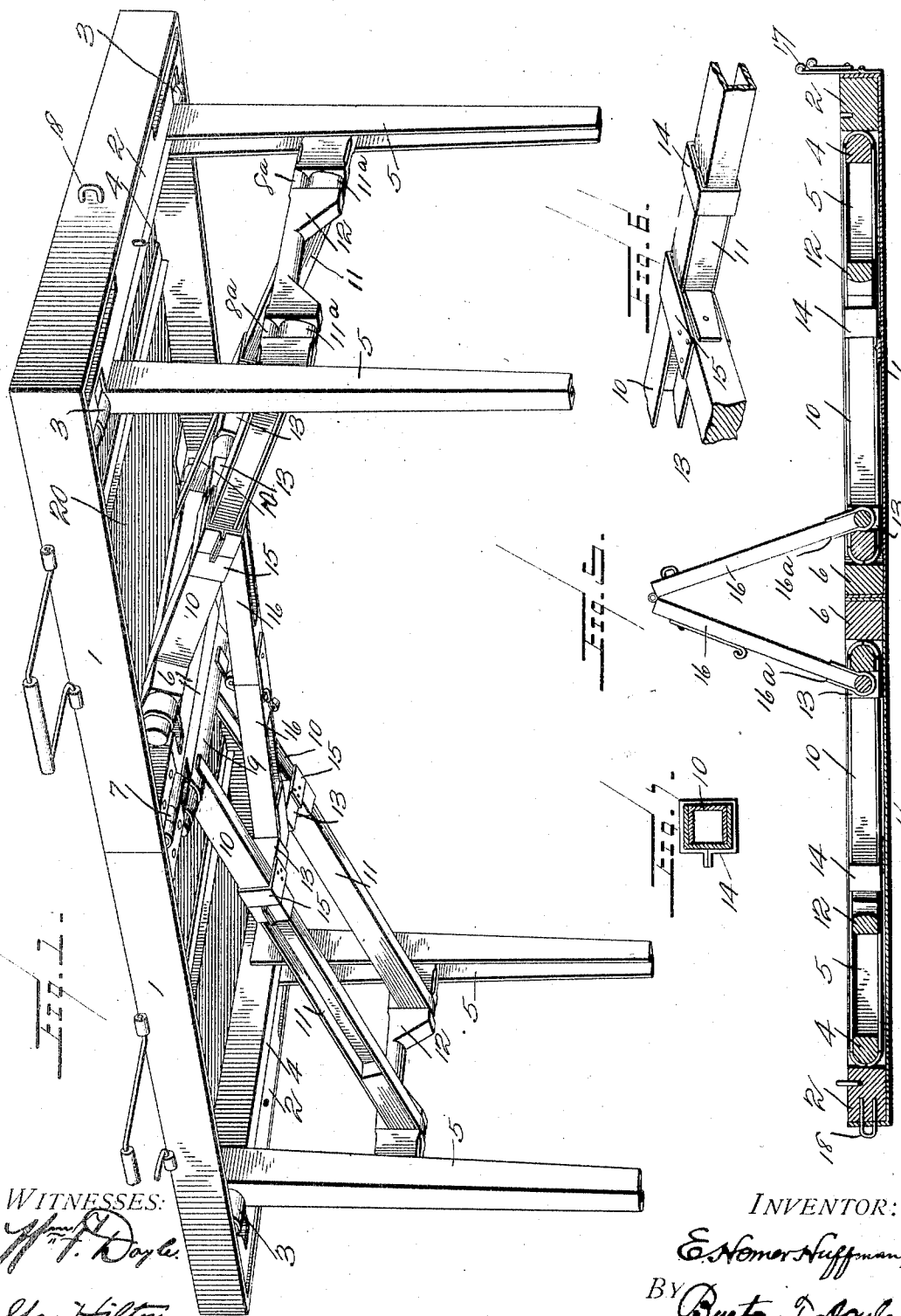
PATENTED JULY 5, 1904.

E. H. HUFFMAN.
FOLDING TABLE.

APPLICATION FILED OCT. 7, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES:

Wm. F. Doyle
Geo. Hilton

INVENTOR:

E. Homer Huffman
By *Burton J. Doyle*,
Attorney.

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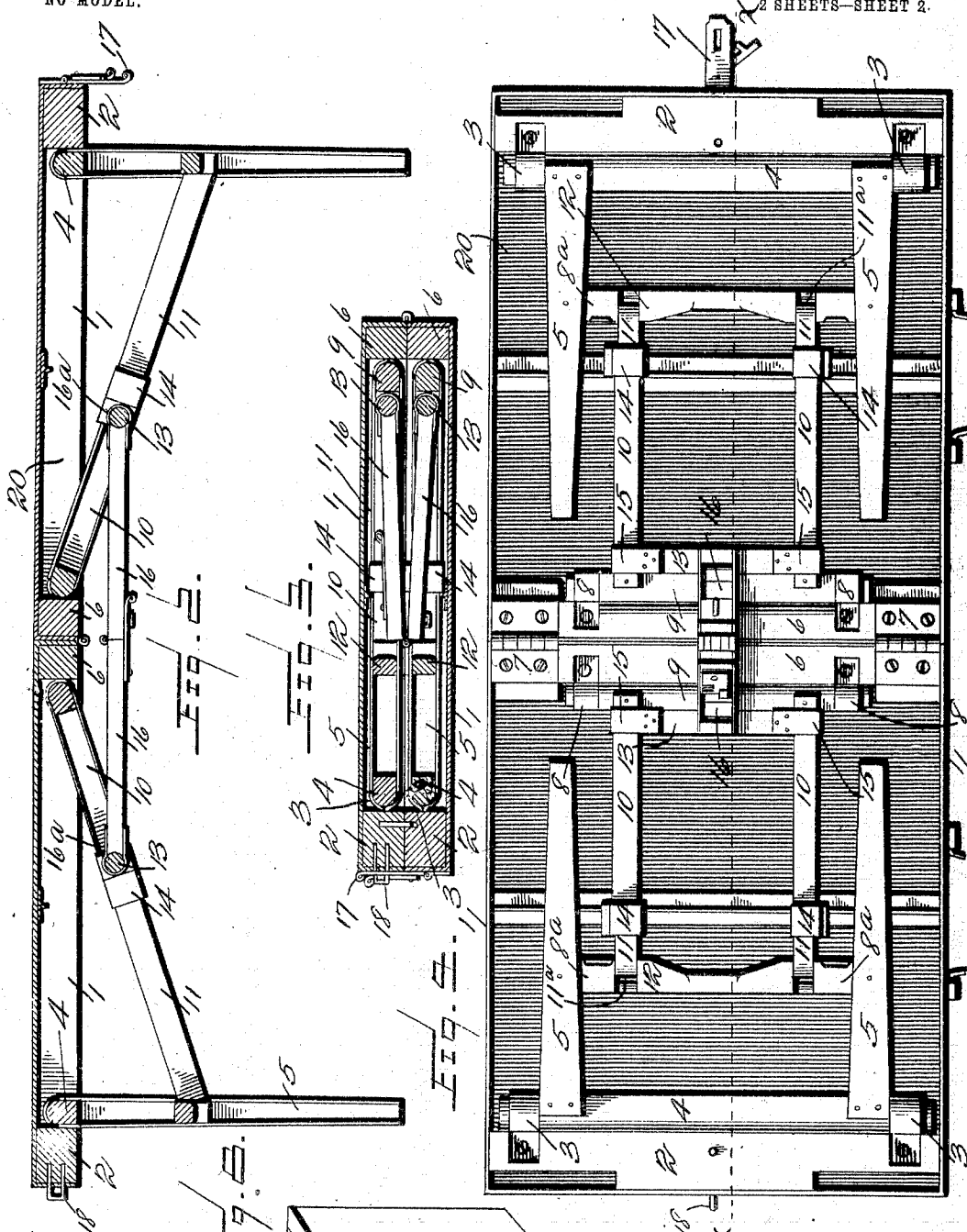
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UNITED STATES PATENT OFFICE.

ELIJAH HOMER HUFFMAN, OF WILMINGTON, INDIANA

FOLDING TABLE.

SPECIFICATION forming part of Letters Patent No. 764,359, dated July 5, 1904.

Application filed October 7, 1903. Serial No. 176,115. (No model.)

To all whom it may concern:

Be it known that I, ELIJAH HOMER HUFFMAN, a citizen of the United States, residing at Wilmington, in the county of Dearborn and State of Indiana, have invented certain new and useful Improvements in Folding Tables, of which the following is a specification.

My present invention relates to the interior mechanism of folding articles of furniture of the portable class, and particularly to that of folding tables, benches, stools, and other articles having legs and a flat upper surface; and its object is to produce articles of furniture which shall be so constructed that both their bodies and legs may be folded into smaller, more compact, and more readily portable shape.

Another object of my invention is to produce articles of furniture of the character described which may be folded into the shape of a suit-case or valise and readily carried in the hand and then easily unfolded into the shape of a table, bench, stool, or other article having legs and a flat upper surface and used in traveling, camping, or picnicking.

Another object of my invention is to produce articles of furniture of the character described which shall be provided, when folded, with vacant interior space sufficient to accommodate table-linen, luncheon, or other small articles for use in traveling, camping, or picnicking.

Another object of my invention is to produce articles of furniture of the character described whose parts shall be so constructed and assembled as to render the articles themselves diminutive, cheap, light, substantial, and durable.

I attain these and other objects not specifically enumerated by means of the constructions, combinations, and arrangements of parts hereinafter more fully described by specification and pointed out by claims, as well as illustrated by drawings which accompany this specification and are hereby made a part of it, and in which—

Figure 1 is a view in perspective elevation of my invention as applied to a table unfolded and ready for use after lowering the handles.

Fig. 2 is a level view of a longitudinal section through Fig. 1. Fig. 3 is a level view of a longitudinal section through the table folded, as shown in Fig. 8. Fig. 4 is a bottom plan view of the table with its sides opened and its legs folded. Fig. 5 is a level view of a longitudinal section along the line *xx* through Fig. 4. Fig. 6 is a detail view of the sliding connection used in the construction of the folding legs. Fig. 7 is a cross-sectional view through cleats used in holding the sliding shafts together, showing the position of the shafts within the cleats; and Fig. 8 is a quarter-view of the table completely folded into the shape of a suit-case or valise and ready for the use of a traveler, camper, or picnicker.

Like characters of reference denote like parts wherever they occur in the various views of the drawings.

11 are two inverted-drawer-shaped or boxed sides, so hinged together that they may be straightened out in line with each other or folded with coinciding peripheries one upon the other.

2 2 are end pieces set within the ends of the two sides 1 1 away from the hinges and to which are secured the collars 3 3 3 3, which encompass and rotatably hold in place the pieces 4 4, to which the legs 5 5 5 5 are made fast and by which they are supported. 6 6 are end pieces set within the hinged ends of the two sides 1 1, to which are secured the hinges 7 7 between the two sides and to which are also secured the collars 8 8 8 8, which encompass and rotatably hold the pieces 9 9, which in turn support and rotatably carry the U-section hollowed shafts 10 10 10 10, slidingly within which fit and longitudinally work other U-section hollowed shafts 11 11 11 11, the outer ends of the latter being rotatably secured by collars 11^a 11^a 11^a 11^a to cross-pieces 12 12 between the legs at either end of the table and about midway of such legs, and the inner ends thereof being connected by the cross-pieces 13 13, whose ends work slidingly within the U-sectioned hollows of shafts 10 10 10 10, the two sets of intersliding shafts 10 10 10 10 and 11 11 11 11 being held in adjustment together by the fixed cleats 14 14 14 14 and the sliding

cleats 15 15 15 15, which encompass both shafts and are secured to cross-pieces 13 13 at their respective terminal points.

16 16 are two pieces placed end to end and hinged together parallel with the longitudinal sides of the table, the other ends of such pieces being rotatably secured to the sliding terminal pieces 13 13 by collars 16^a 16^a about midway thereof, so that their hinged ends will rise up over or straighten out upon and across the seam between the two hinged sides of the table as the latter are closed together or opened apart.

17 is a hasp with a slot and latch placed upon one of the folding sides of the table to pass over and engage the staple 18, placed upon the other folding side to hold the two sides locked together in the folded form, as shown in Fig. 8. Like hasps and staples are used upon the two meeting pieces 16 16 to lock them in a rigid position in line with each other when the table is opened out for use.

19 19 are handles by which the table or other article may be carried when folded into the valise or suit-case form shown in Fig. 8, and 20 is the vacant space within the two folded sides 1 1, which is only partially occupied by the necessary parts of the mechanism and much of which remains available for use in carrying table-linen, luncheon, or other small articles needed by the traveler, camper, or picnicker.

The table or other article being folded, as shown in Fig. 8, and desiring to unfold it for use, as shown in Fig. 1, I first unclasp the hasp 17 and remove it from the staple 18 and then lay the two sides apart, as shown in Fig. 1, leaving the two hinged pieces 16 16 in the upright positions shown in Fig. 5. Then taking hold of one leg 5 on each of the two folding sides 1 1 and lifting it upward on the arc of a circle causes the two cross-pieces 12 12 between the two respective pairs of legs to rise up on the arc of a circle and carry with them the outer ends of the shafts 11 11 11 11 the collars 8 8 8 8 of these shafts allowing them to turn about the cross-pieces 12 12; but these shafts 11 11 11 11 having sliding longitudinal connections with the other shafts 10 10 10 10 the elevation of the former causes the elevation of the outer ends of the latter, also their inner ends turning with the cross-pieces 9 9, which are permitted to rotate within their collars 8 8 8 8 about the respective end pieces 6 6, and at the same time the elevation of these two sets of shafts causes the two cross-pieces 13 13 (which are secured to the inner ends of shafts 11 11 11 11) to follow the respective cross-pieces 12 12, secured between the two respective pairs of legs, thus making the two sets of shafts travel longitudinally along the sides of each other; but as these two cross-pieces 13 13 separate from each other in this motion the two hinged

pieces 16 16, whose lower ends are secured by their collars 16^a 16^a to the respective cross-pieces 13 13, straighten out in line with each other, as shown in Fig. 2, when the two sets of legs reach their standing positions. Then, fastening the hasp over the staple to hold these two pieces 16 16 locked in this rigid position, so that they will in turn hold the two sets of legs in the opened position shown in Fig. 1, dropping the handles 19 19 out of the way and turning the table or other article upon its legs, as shown in Fig. 1, it is ready for use. This process is exactly reversed in folding the table or other article from the position shown in Fig. 1 to the position shown in Fig. 8. While I have shown and described these shafts 10 and 11 in tubular form with nearly U-shaped cavities and open on their respective inner sides and sliding the one within the other with their open sides respectively facing each other, as shown in Fig. 6, and while I prefer that structure in making these shafts of metal, I do not mean to be limited to that specific structure, for I may, if I prefer it, use a solid instead of a tubular shaft, the one working longitudinally along the side of the other within cleats to hold them together and I may in like manner make any of the other parts either solid or tubular and of either wood or metal or partly of wood and partly of metal.

Having thus fully described my invention, and without meaning to be limited in use to the exact construction and arrangement of parts shown and described, since I am aware that many minor changes may be made in these without departing from the scope and spirit of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A portable folding table, comprising two sections hinged together, four transverse end pieces rigidly secured to these two hinged sections, one piece at each end of each section; four other transverse pieces parallel, respectively, with these four transverse end pieces and rotatably secured to them, respectively, by collars at either end thereof, the outer two of the latter transverse pieces carrying four longitudinally-disposed legs firmly secured thereto, one at each end of each, and the inner two of the latter transverse pieces carrying four longitudinally-disposed shafts firmly secured thereto, one at each end of each; two other transverse pieces secured, respectively, between the two pairs of legs and parallel with the other transverse pieces already named, having secured to them rotatably by collars four other longitudinally-disposed shafts, two to each piece, working longitudinally within the first-named shafts, respectively, and slidingly secured to them, respectively, by cleats encompassing both shafts, the latter shafts carrying, one on either side between their terminal points, two other trans-

verse pieces secured to them, each of these two latter transverse pieces carrying rotatably secured to it by a collar a longitudinal piece, the other ends of these two longitudinal pieces being secured together by a hinge and carrying, respectively, a staple and a hasp to lock and hold them rigidly in position when they are straightened out in line with each other, substantially as described.

10 2. In portable folding tables having two sections hinged together, two pairs of longitudinally-disposed shafts on each section, the pairs on the same section working in a sliding manner alongside of each other, respectively, with-
15 in cleats, the outwardly-working pairs being rotatably secured by collars to two transverse pieces firmly set between two legs pivoted at each outer end of the sections, and the inward
20 pairs being secured to two transverse pieces rotatably secured by collars to two other transverse pieces, themselves securely fastened within the inner ends of the two sections, said outwardly-working pair having, respectively,

between their inner ends two other transverse pieces, each having at its ends cleats encompass- 25
ing the other shafts, respectively, in a sliding manner and, near their respective middle portions, two longitudinally-disposed pieces having their inner ends hinged together and provided with a staple and hasp to hold them 30
locked rigidly in line with each other when the mechanism is opened out, and their outer ends rotatably secured by collars to the last-named transverse pieces, respectively, so that said longitudinally - disposed pieces will 35
straighten out into line with each other as said last-named transverse pieces separate from each other in the general motion of the mechanism, substantially as described.

In testimony whereof I affix my signature in 40
presence of two witnesses.

E. HOMER HUFFMAN.

Witnesses:

WILLIAM RUBLE,
GILLETTE BURCHER.