

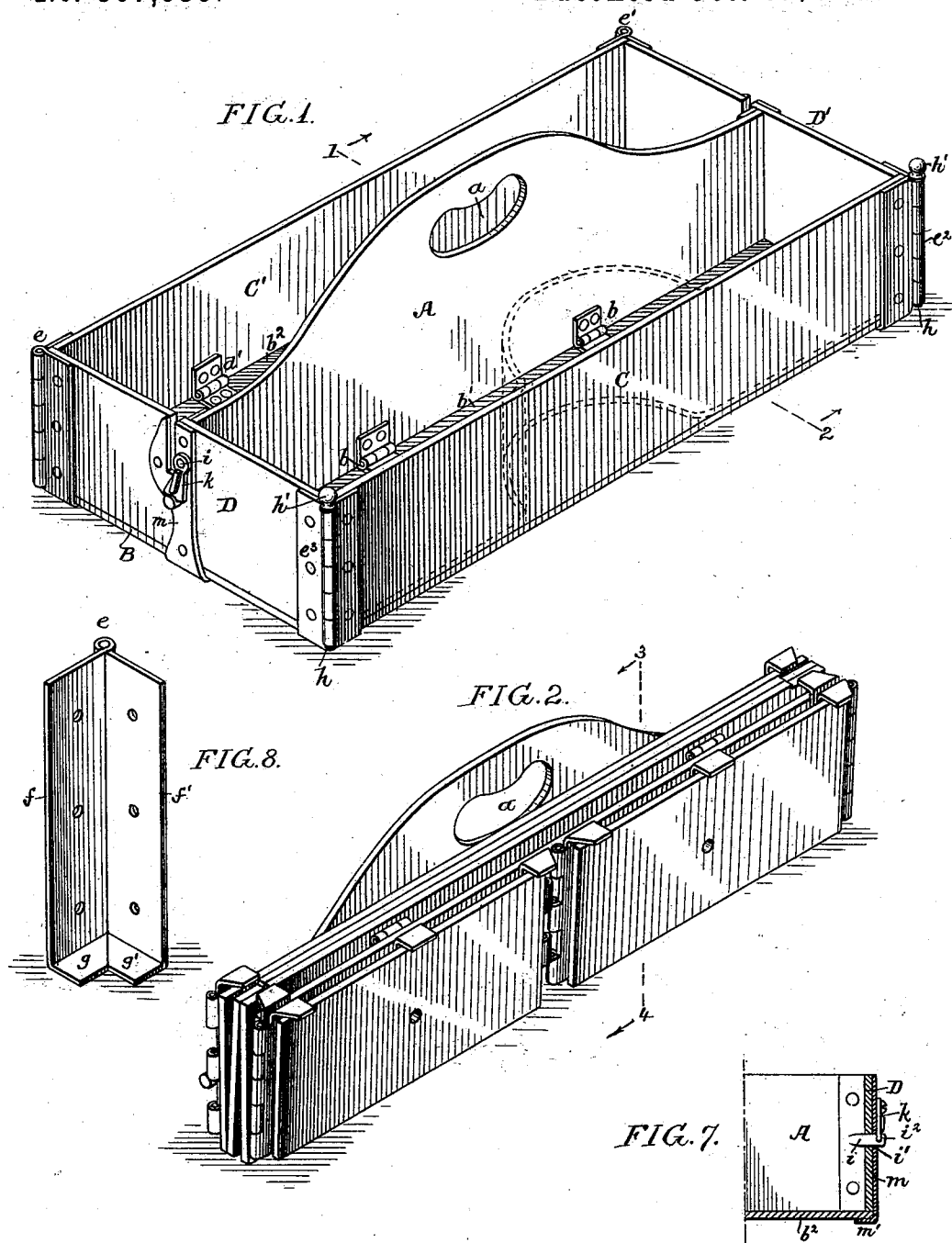
(No Model.)

2 Sheets—Sheet 1.

W. J. SIMPSON.
TOOL BOX.

No. 507,939.

Patented Oct. 31, 1893.



Witnesses:

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FIG. 3.

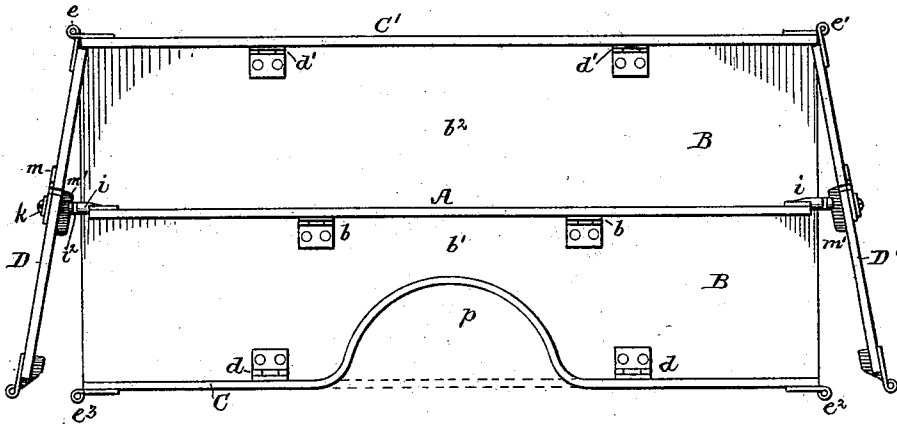


FIG. 4.

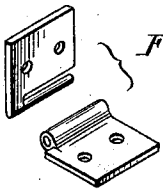
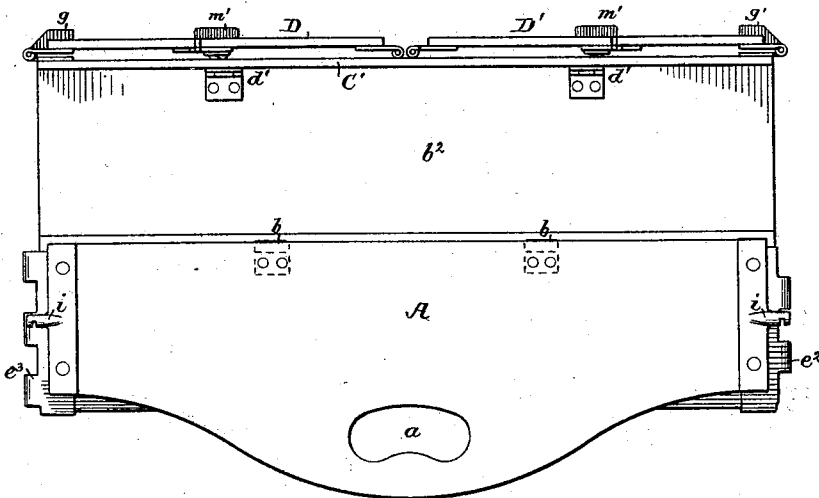


FIG. 9.

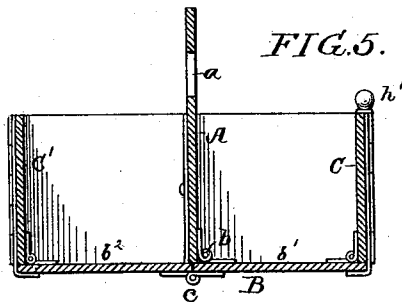
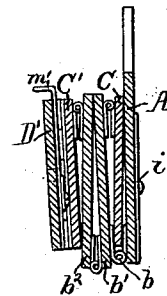


FIG. 5.

FIG. 6.



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UNITED STATES PATENT OFFICE.

WILLIAM J. SIMPSON, OF DUDLEY, NEW JERSEY.

TOOL-BOX.

SPECIFICATION forming part of Letters Patent No. 507,939, dated October 31, 1893.

Application filed January 19, 1893. Serial No. 459,015. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. SIMPSON, a citizen of the United States, and a resident of Dudley, Camden county, New Jersey, have invented certain Improvements in Tool-Boxes, of which the following is a specification.

My invention relates to certain improvements in tool boxes, more especially of the class used by carpenters, and has for its object the construction of a box in such manner that it may be readily folded together or taken apart and packed in a very small space for convenience in transportation, as more fully set forth hereinafter.

In the accompanying drawings, Figure 1, is a perspective view of a tool box constructed in accordance with my invention and illustrating the box open in readiness to receive the tools. Fig. 2, is a perspective view of the same, with the parts folded together. Fig. 3, is a plan view showing the ends of the box unfolded, and also illustrating a modification. Fig. 4, is a similar view showing the ends folded back to one side of the box and the opposite side and central partition folded down. Fig. 5, is a transverse section on the line 1—2, Fig. 1. Fig. 6, is a similar sectional view on the line 3—4, Fig. 2, showing the parts folded. Figs. 7, 8 and 9, are views of details of construction.

In boxes used for carrying tools, more especially those used by carpenters, it has been found that, as a general rule, the box is of such size as will prevent its being packed in a tool chest and such boxes are usually thrown away when the user is compelled to travel any distance necessitating the making of a new box.

My invention therefore is principally designed to provide a box that may be packed away in a small space when not in use, and that may be more readily carried from place to place.

Referring to the accompanying drawings, A represents the central partition of the box, provided with the usual hand hole *a*, and at its lower edge is hinged at *b* to one portion *b'* of the bottom B of the box, and to the portion *b'* is hinged at *c* the opposite section *b²* of the bottom of the box. To the section *b'* is hinged at *d* the side C and to the section *b²* is similarly hinged at *d'*, the side C' of the

box. At the opposite ends of each of the sides C, C', are hinged the end pieces D D' by a series of hinges *e*, *e'*, *e²* and *e³*, the construction of the hinges being such that, when necessary, the pintle of the hinge may be removed and the end sections entirely disconnected or the pintles of the hinges *e²* and *e³* may be removed so that the ends D D' may be folded back on the side C' by means of the hinges *e* and *e'*. The construction of each of the hinges *e*, *e'*, *e²* and *e³* is precisely the same and such construction will be seen more clearly on reference to Fig. 8, wherein is shown a perspective view of one of the hinges detached from the box. As shown in this view the opposite leaves *f*, *f'* are continued down for some distance below the point of connection with the sides and ends of the box and are then twined at right angles to such leaves, forming projecting lips *g* *g'* which have their edges nearest the pintle so inclined as to form, when the leaves of the hinge are at a right angle, a miter joint, and so arranged with respect to the parts of the box which they connect that when in position the lips will extend under the bottoms of the corners of the box and serve to further strengthen and support the same.

When the box is of such a character as to be capable of having its parts completely separated from each other it is preferable to make the hinges with a removable pintle *h* and to provide at the top of said pintle a knob or handle *h'* by which it may be conveniently taken out or placed in position, but where the parts are so arranged as to have the opposite ends of the box fold back on the side C' it is preferable to provide only the hinges *e²*, *e³* with such handled pintles, as in that event the person using the box is not liable to remove the pintles of the hinges *e* or *e'*. The hinges which connect the central partition A with the section *b'*, or the section *b'* to the section *b²*, or the section *b²* and the section *b'* to the side sections C and C', may be also made of movable pintles or, if desired, one part may be provided with a suitable opening for the reception of a pintle carried by the opposite part and the two be separated by a movement on a line parallel with the hinge line, as for instance a hinge constructed as shown in Fig. 9.

In connecting the central partition A with the ends D D' of the box, I preferably provide the opposite ends of the partition A with projecting tongues or fingers *i*, which are adapted to extend entirely through openings *i'* in such end portions and on the outer side of such end portions is hung a pivoted locking lever *k* the lower end of which is adapted to a suitable recess *i''* in such tongue or projection so as to lock the same in the proper position and when such is the case the tongues serve, in a measure, to support and strengthen the box.

A further feature of construction is that illustrated more clearly in Fig. 7, wherein is shown a section of one end of the box at the point where it joins the central partition A and in which is illustrated a plate *m* secured to the end of the box and serving as a pivot for the locking tongue or lever *k* above referred to, the plate *m* extending down to a point some distance below the lower edge of the end portion and being there provided with an inwardly projecting lip *m'* adapted to extend under the edges of the ends of the bottom sections *b'* and *b''* and so support and strengthen the same.

When the construction of the box is such that the sections may be readily taken apart I prefer to provide one of the sides of the box with a side opening so that it may be more readily carried upon the shoulder of a workman, the center of the box being brought more nearly to the center of the shoulder or partly surrounding the neck so as to permit of the easier carrying of the tools, and in Fig. 3, and by dotted lines in Fig. 1, I have shown the section *b'* of the bottom somewhat cut away so as to form an opening *p* while the side of the box is of corresponding shape but so arranged as to permit the fastening of the box together in the usual way, while the remaining sections, after the removal of the bent side piece, may be either separated or merely folded together.

In Figs. 3 and 4, I have illustrated the box in the course of being folded up, it being understood that if the construction is that shown in full lines, with the side C bent to conform to the opening *p*, this side must first be removed before folding the remaining parts. The locking levers *k* have been moved out of engagement with the locking recesses *i'* in the projections *i* and the pintles of the hinges *e*², *e*³ have been removed so as to permit the swinging of the ends D D' on their pivot points *e* and *e'*.

Fig. 4, illustrates a further stage of the folding and in this figure the side C which in this case is straight, as in dotted lines, Fig. 3, has been folded down onto the section *b'* of the bottom; the central partition A has been folded down on top of the side C and the two end sections have been folded entirely back on the outside of the side C. To complete the folding it is only necessary to fold at the joints *c* and *d'* and the box will then assume the shape shown in Figs. 2 and 6, in which condition it may be conveniently packed away or carried from place to place.

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

1. The combination in a folding tool box, of the bottom divided longitudinally and hinged together, a folding longitudinal partition or center piece hinged to one of said bottom sections and folding side and end pieces, substantially as specified.

2. The combination in a folding tool box, of the bottom divided longitudinally and hinged together, the folding side pieces hinged respectively to the two sections of the bottom, and the folding end pieces each hinged to one of the folding side pieces, substantially as specified.

3. The combination in a folding tool box, of the bottom piece, the side pieces hinged to said bottom so as to fold down thereon and the end pieces hinged to said side pieces so as to turn back thereon, each of the hinges connecting said side and end pieces having at the bottom beveled flanges which project beneath the bottom of the box and brace the corners of the same, substantially as specified.

4. The combination in a folding tool box, of the bottom divided longitudinally and hinged together in the center, the folding longitudinal center piece hung to one of said bottom sections and having projecting lugs at the ends, the folding side pieces and the folding end pieces, each of the latter having a plate with catch for engaging with the lug of the center piece and bottom flange for projecting beneath the bottom of the box and stiffening the center joint of the same, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM J. SIMPSON.

Witnesses:

JNO. E. PARKER,
JOSEPH H. KLEIN.