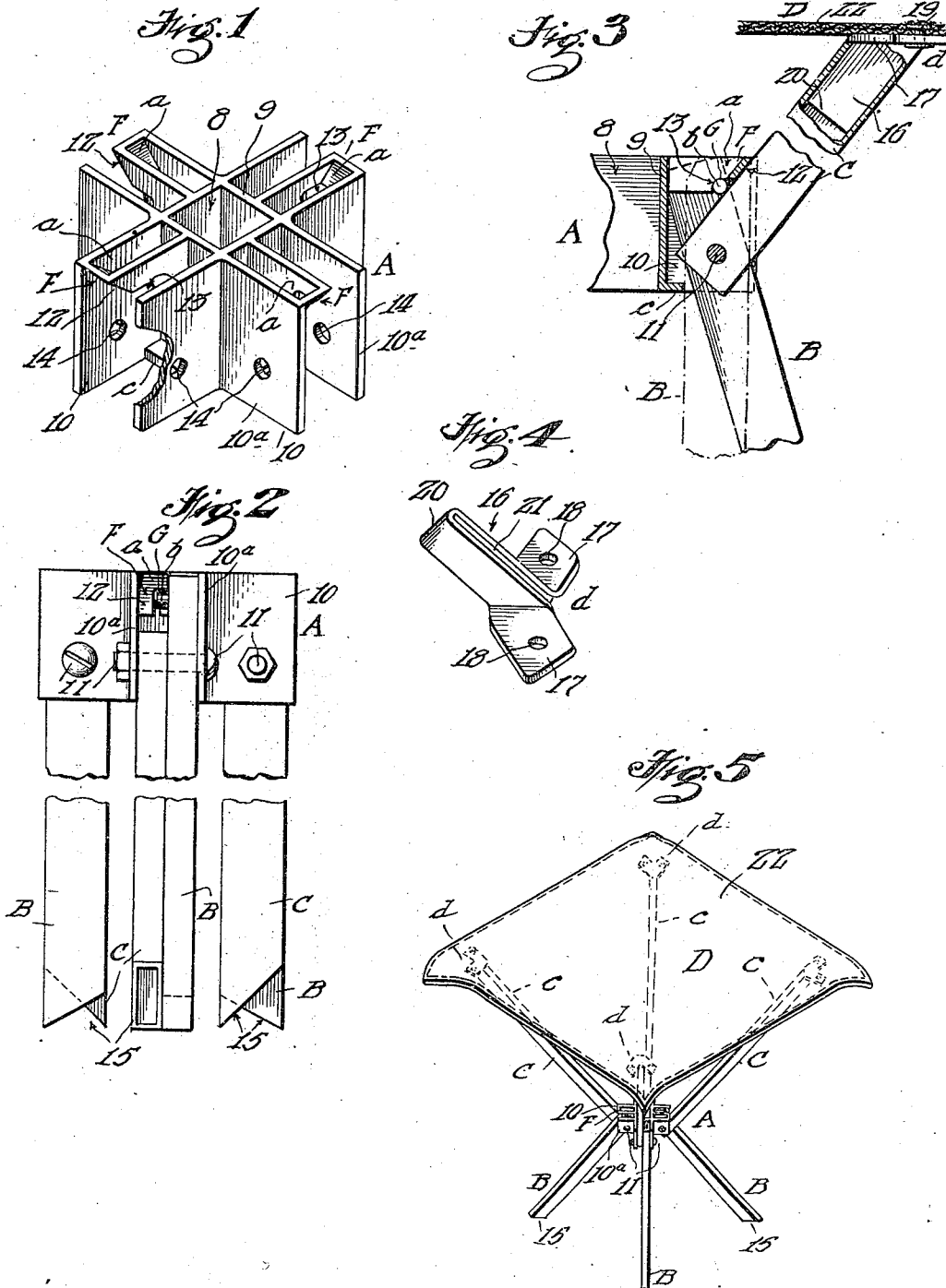


H. J. SWARTS.
FOLDABLE STOOL OR TABLE.
APPLICATION FILED AUG. 20, 1908.

948,533.

Patented Feb. 8, 1910.

2 SHEETS—SHEET 1.



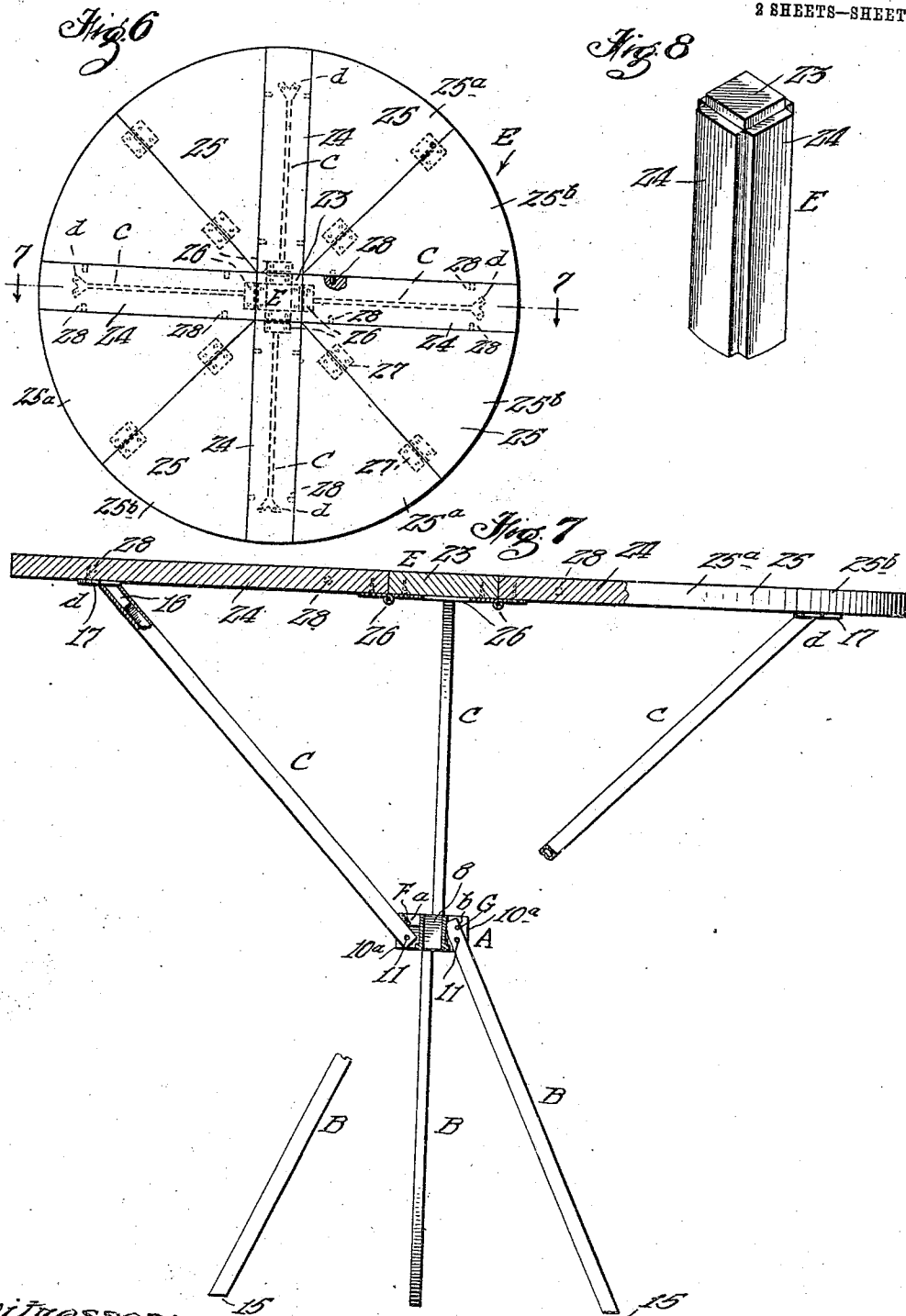
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Inventor,
Henry J. Swarts,
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his Attorney

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Witnesses:
H. C. Adam.
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UNITED STATES PATENT OFFICE.

HENRY J. SWARTS, OF ALHAMBRA, CALIFORNIA, ASSIGNOR OF ONE-HALF TO
CHARLES H. TEMPLE, OF LOS ANGELES, CALIFORNIA.

FOLDABLE STOOL OR TABLE.

948,533.

Specification of Letters Patent.

Patented Feb. 8, 1910.

Application filed August 20, 1908. Serial No. 449,549.

To all whom it may concern:

Be it known that I, HENRY J. SWARTS, a citizen of the United States, residing at Alhambra, in the county of Los Angeles and State of California, have invented new and useful Improvements in Foldable Stools or Tables, of which the following is a specification.

This invention relates to foldable stools or tables, or other supports, the parts and members of which are adapted for extension into operative position or condition, and to be collapsed or knocked down into compact position or condition; and the invention has for its object to provide an improved device or article of the character referred to, which shall be superior in point of simplicity and inexpensiveness of construction, stability and rigidity in service and convenience in use, manipulation and transportation; and which will be generally superior in point of efficiency and serviceability.

The invention consists in the provision, construction, combination, association and relative arrangement of parts, members and features, all as hereinafter described, shown in the drawings, and finally pointed out in claim.

In the drawings:—Figure 1 is a perspective view of the nucleus or body portion of a foldable structure embodying the invention, parts being broken away for clearness of illustration; Fig. 2 is a side elevation of the same together with other parts and members of the improved structure; parts being broken for convenience of illustration; Fig. 3 is a vertical sectional view of the construction shown in Fig. 2, together with a portion of the seat proper of the stool; parts being broken away for convenience of illustration; Fig. 4 is a detail perspective view of a further feature of the improved construction; Fig. 5 is a perspective view of a foldable stool, in entirety, embodying the invention; Fig. 6 is a top plan view, partly broken away for clearness of illustration of a modified form of construction, constituting a foldable table; Fig. 7 is an enlarged transverse sectional view, taken upon the line 7—7, Fig. 6, and looking in the direction of the appended arrows, parts being broken away and shown in full lines for clearness of illustration; and, Fig. 8 is a perspective view of certain parts and members of the

structure shown in Figs. 6 and 7, being in folded or collapsed position and condition.

Corresponding parts in all the figures are denoted by the same reference characters.

Referring with particularity to the drawings, the improved foldable, stool, table or other support, comprises a nucleus or body portion A with which are combined and associated a plurality of lower supporting members or legs B, and a plurality of upper supporting members or struts C; all of which supporting members are foldable with relation to each other and the nucleus or body portion A. The seat proper D in the form of construction illustrated in Figs. 1 to 5, inclusive, and the table top E in the form of construction shown in Figs. 6 to 8, inclusive, are each associated with the upper supporting members C. The lower supporting members B are adapted, when in extended positions, to rest upon the floor. The upper supporting members C are projected into extended positions prior to connection with the seat proper D or the table top E.

F designates means operating together with the seat proper D or the table top E for maintaining the upper supporting members C in extended operative positions; and G designates means, operating respectively in connection with the respective upper supporting members C, for maintaining the lower supporting members B in extended or operative positions.

A particular preferred form of construction of the improvements constituting the invention, as shown in Figs. 1 to 5, inclusive, is as follows: The nucleus or body A comprises a central upright rectangular tubular portion 8, from the respective faces 9, of which project housings or frames 10, four in number, each of which receives and supports and accommodates between its parallel plates 10^a the inner end portions of one of the lower supporting members B and one of the upper supporting members C. Transversely through each of the housings or frames 10 passes a detachable pivot pin or bolt 11 by means of which both of the respective members B and C are pivotally supported in parallelism or overlapping relation, according to the position of adjustments of said supporting members. At one side of each housing or frame 10, above said pivot and adjacent to the top thereof, is

arranged a stop *a* comprising the means F; said stop including an inwardly and downwardly beveled or undercut portion 12 against which the upper surface portion of the respective upper supporting member C is adapted to bear, when said member C, is in extended operative position, and a flat side face past which the member B passes and by which said member is held against lateral movement. Laterally from the upper end portion of each of the members B projects a stop pin *b*; said stop pin extending inwardly of the respective housing or frame 10 and toward the side of said housing provided with the respective stop *a*, which is cut away at its lower portion, as at 13, to accommodate the said stop pin, which constitutes the means G, when the respective member B is projected into extended or operative position; at which latter time the stop pin rests upon the upper face of the respective extended member C, as clearly shown in Fig. 3. When the members C and B are in collapsed or folded condition, said members extend in parallelism, projecting vertically downwardly from the nucleus or body portion A; the upper end portion of the member B extending past one side of the stop *a* and substantially to the upper portion of the respective housing or frame 10; and the upper end portion of the respective member C lying beneath the stop *a*. The lower and inner portion of each housing or frame 10 is provided with an outwardly projecting stop plate *c* against which the respective member C, beneath the pin or bolt 11 bears when in folded position. The vertical side plates or members 10^a of each of the housings or frames 10, are parallel and relatively spaced to accommodate the pivoted upper end portions of the respective pair of members B and C; and said side plates or members 10^a are provided with suitable openings 14 to receive the respective pin or bolt 11. The outer end portions of the members B and C are beveled, as at 15, so that when the members are in extended operative positions, said end portions shall present suitable horizontal surfaces, respectively for resting upon the floor and for receiving the seat proper D, (or the table top E shown in Figs. 6 to 8, inclusive).

For connecting the seat proper D with the supporting members C, I provide attaching means *d*, shown in detail in Fig. 4, and comprising a body 16 adapted to enter and fitting each of the members C, which members are preferably all of rectangular tubular formation, as clearly shown in Figs. 2 and 3 with respect to the members C; together with which body 16 are associated lateral ends 17 with which the seat proper D is directly connected. The ends may be provided with holes or openings 18 for the reception of pins, rivets or brads 19, which

firmly connect the seat proper with said ends 17. The body 16 and ends 17 may be of integral sheet metal formation, formed of a blank bowed in the center, as at 20, the end portions of the blank being flared outwardly and oppositely to form the ends 17. The central bowed portion 20 of the blank may be reinforced by a sheet or strip 21 of suitable material inserted between the folds or sides thereof. The seat proper D may comprise a rectangular strip or sheet 22, of textile material, leather or other suitable flexible substitute. The attaching means *d*, when connected with the seat proper D, at properly spaced points, or corners, may be readily connected with the supporting members C by introducing the bodies 16 of the attaching means within the tubular members at the upper ends thereof. The ends 17 rest upon the upper end portions of the members C.

Referring with particularity to the form of construction shown in Figs. 6 to 8, inclusive, the nucleus or body portion A, the supporting members B and C, the attaching means *d*, and the attendant features and details of the same, are constructed in accordance with the description of the same above given, as shown in detail in Figs. 1 to 5, inclusive. The table top E comprises a central horizontal member 23, a plurality of foldable lateral or radial attached members 24, and a plurality of foldable lateral or radial detachable members 25. The supporting members C are directly connected with the members 24 through the agency of the respective attaching means *d*. The central horizontal member 23 is preferably of square rectangular formation, and the members 24 are preferably of substantially rectangular elongated formation, being hinged respectively in connection with the central member 23, at the respective side edge thereof, as at 26, so as to be capable of extending in a plane common with that of the member 23 and of being folded downwardly so as to depend at right angles from the member 23. The members 25 consist each of two sector shaped sections or portions 25^a and 25^b, respectively, which are hinged together, as at 27, at a side edge portion of each of the same whereby they may be folded into flat face-to-face relation. The outer edge portion of the sections 25^a and 25^b are provided with suitable pins 28, constituting together with openings in the side edge portions of the members 24, attaching means whereby the members 25 are detachably connected with the members 24, completing a continuous table top E. The outer edge portions of the members 24 and 25 are comprised within a predetermined design, such as that of the circular formation shown in Fig. 6. The hinged provision between the sections 25^a and 25^b of the members 25 are only shown in dotted lines, but are similar

to those shown at 26, and of any preferred and suitable form, whereby the extended sections 25^a and 25^b, when united with the members 24, are locked against disarrangement by depression. The supporting members C maintain all of the members 23, 24 and 25, in horizontal extended positions as a unitary table top E.

The operation, method of use and advantages of the improvements in foldable stools or tables or other supports, constituting the invention will be readily understood from the foregoing description, taken in connection with the accompanying drawings and the following statement:—For transportation or storage, the supporting members B and C are folded downwardly to extend beneath the nucleus of body portion A, in compact position, or condition, upon the pins or bolts 11; the seat proper D or table top E with the attaching means *d* being wrapped around the aforementioned parts and members or folded and passed among the members B and C; or all the parts and members may be wrapped or combined together in knocked down form, in any convenient or suitable arrangement. The entirety, providing the proportions and dimensions of the parts and members are proper, may be readily packed in a bag, suit-case, trunk or other receptacle; or, in fact, conveniently carried in a coat-pocket, or carried by hand, the total necessary weight of the same being exceedingly small.

The above statement is with respect to the form of construction shown, in Figs. 1 to 5, inclusive. In the form of construction shown in Figs. 6 to 8, inclusive, the same procedure is followed, with the exception that the foldable lateral members 24 of the table top E are folded downwardly upon their hinges at the sides of the central horizontal member 23, after the foldable lateral or radial detachable members 25 are sprung free from the members 24. The sector shaped portions 25^a and 25^b of each of the members 25 may then be folded together by means of their hinges 27 and combined with the members 23 and 24 and the members B and C, in any preferred and convenient manner, the attaching means *d* remaining fixed to the members 24.

To extend and project the members B and C into operative positions for connection with the seat proper D, or the table top E, through the agency of the attaching means *d*, the struts C are swung upwardly from collapsed position into engagement with the respective stops *a* constituting the several means F. This brings the upper inner portions of the struts C into engagement with the stop pins *b*, respectively, constituting

means G, respectively, forcing the upper end portions of the legs B inwardly of the housings or frames 10, respectively, the pins *b* being accommodated by the cut away portions 13 of the stops *a*, respectively. The legs B now project in downward inclination and proper braced relation for sustaining the entire device, and the struts C project in upward inclination and in positions, are properly grouped, for connection with the seat proper D or table top E through the agency of the attaching means *d*. When the seat proper or table top is so connected with the struts C, the latter are prevented from relative movement; and the legs B are consequently prevented from relative movement, as the inner upper portions of the struts C, bearing upon the stop pins *b* hold and maintain the legs B each in the downward and outward inclination, before mentioned, and shown in Figs. 3, 5 and 7.

Each of the forms of construction shown in the drawings serves the purpose required with effective stability and rigidity; and the device in either of the forms shown, or in other forms coming manifestly within the spirit of the invention may readily be knocked down and reduced to compact form and condition for transportation or storage.

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

A device of the character described comprising the seat or other part, the struts detachably connected therewith, the legs having angular upper ends, and a nucleus consisting of a central upright portion, a series of radial housings each formed of a pair of parallel plates projecting from said portion and spaced for the reception of one strut and one leg lapping each other therebetween, a pin through the plates and the strut and leg and forming a common pivot for the latter elements, an undercut stop rigid with that plate which is adjacent the strut and having a beveled lower face with a cut away portion and a flat side face past which said leg moves, a pin projecting laterally from the leg above its pivot and adapted to enter said cut away portion in the stop when the strut lies against said face, and a stop plate projecting outward within each housing below its pivot, and adapted to abut against the inner edge of the leg when the latter is folded to a vertical position.

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

HENRY J. SWARTS.

Witnesses:

TILLIE E. ADAM,
CAL F. HUNTER.