

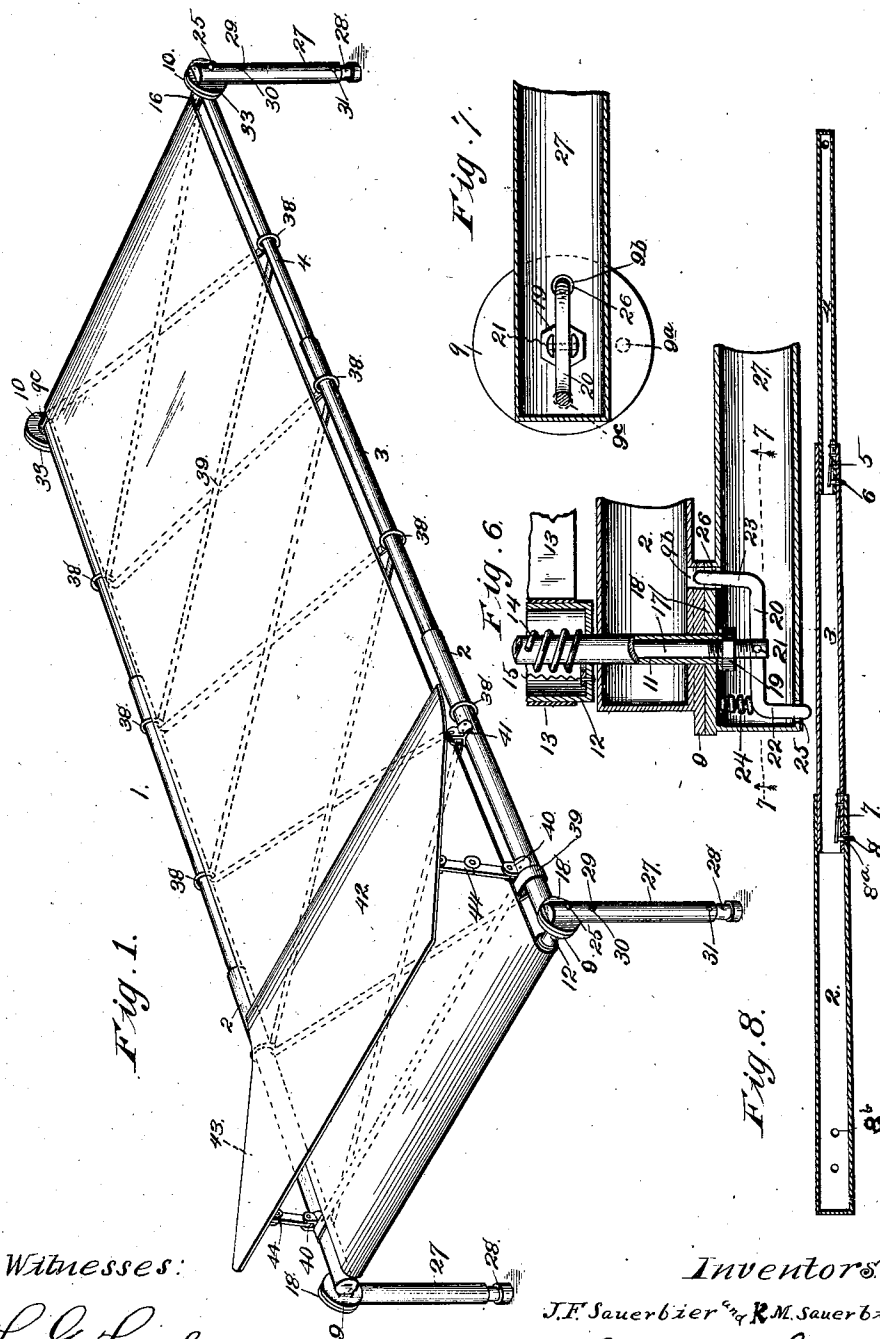
(No Model.)

2 Sheets—Sheet 1.

J. F. & K. M. SAUERBIER.
COMBINED BED, TABLE, STRETCHER, AND CHAIR.

No. 542,374.

Patented July 9, 1895.



Witnesses:

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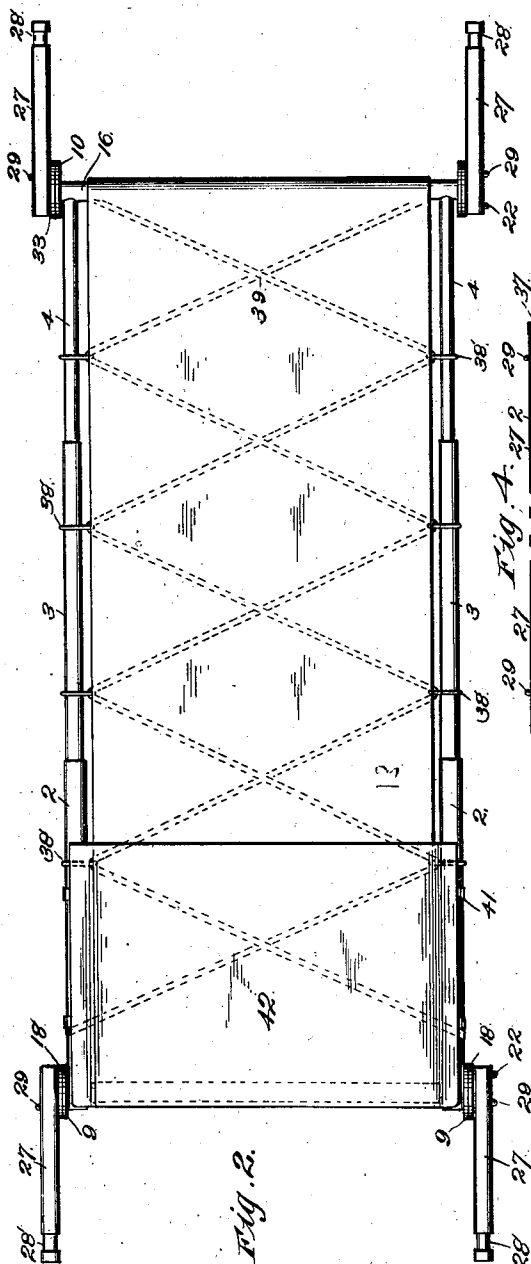


Fig. 2.

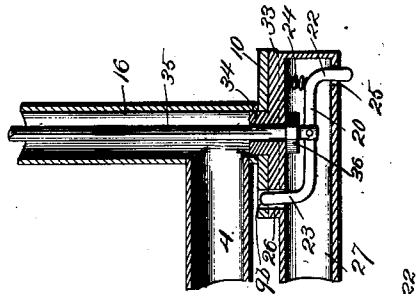


Fig. 5.

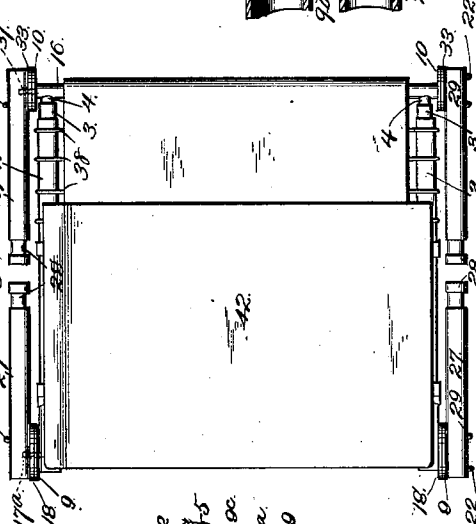


Fig. 4.

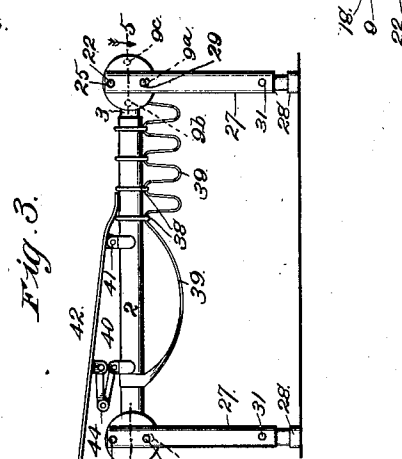


Fig. 3.

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UNITED STATES PATENT OFFICE.

JOHANN F. SAUERBIER AND KARL M. SAUERBIER, OF INDEPENDENCE,
MISSOURI.

COMBINED BED, TABLE, STRETCHER, AND CHAIR.

SPECIFICATION forming part of Letters Patent No. 542,374, dated July 9, 1895.

Application filed April 12, 1895. Serial No. 545,479. (No model.)

To all whom it may concern:

Be it known that we, JOHANN F. SAUERBIER and KARL M. SAUERBIER, of Independence, Jackson county, Missouri, have invented certain new and useful Improvements in a Combined Bed, Table, Stretcher, and Chair, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part thereof.

Our invention relates to combination tables, beds, stretchers, and chairs, and our object is to provide a combination article of this character, which is conveniently portable and may easily and expeditiously be converted from one of such articles into another.

A further object is to provide an article of this character which combines simplicity, strength, and durability in a high degree, together with inexpensiveness of construction.

With these objects in view the invention consists in certain novel and peculiar features of construction and combinations of parts, as will be hereinafter described and claimed.

In order that the invention may be fully understood, we will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 represents a perspective view of the article arranged as a bed or couch, or as a table if the head-rest be removed and the legs extended. Fig. 2 is a top plan view of the same arranged as a stretcher. Fig. 3 is a side elevation of the same arranged as a chair. Fig. 4 is a top plan view of the article when folded for transportation. Fig. 5 is a horizontal section, on an enlarged scale, taken on the dotted line 5 of Fig. 3. Fig. 6 is a similar view taken on the dotted line 6 of Fig. 3. Fig. 7 is a section taken on the line 7 7 of Fig. 6. Fig. 8 is a longitudinal section of one side of the telescopic frame.

In the said drawings, 1 designates a combination article embodying our invention. It preferably comprises parallel side portions, which consist of telescopic sections 2, 3, and 4. When the frame is extended to its full length, as represented in Figs. 1 and 2, and is adapted to be employed as a table, a bed, or a stretcher, the spring-plates 5 and 7, carried, respectively, by the smallest tubular section 4 and the intermediate tubular sec-

tion 3, cause the pins 6 and 8, respectively, to project through registering apertures 6^a and 8^a in said sections 4 and 3 and 3 and 2, as shown clearly in Fig. 8. The ends of said pins are rounded or beveled, so that when they are forced inward and longitudinal pressure is applied against said tubular sections, the pressure of the same against said rounded heads will cause the springs to yield inwardly, so that these sections may be slid telescopically, or one upon the other, to shorten or lengthen the frame. The tubular sections 2 are provided also with apertures 8^b (see Fig. 8) for engagement with the pins 8, when the frame is in its folded or retracted position, which is shown clearly in Fig. 4. Welded or otherwise rigidly secured upon the outer side of each section 2 at its closed end is a disk 9, which is arranged vertically, and 10 designates similar disks, which are secured at the opposite end of the telescopic frame.

11 designates a tubular rod, which is rigidly mounted near its opposite end axially of the disks 9, and also extends through the tubular sections 2. A roller 12 is mounted rotatably upon said tubular rod between said sections 2, and forms the head-bar of the frame. Secured upon this roller is one end of a flexible support 13, which serves as a table or bed. A spring 14 spirally encircles the tubular rod 11 within said roller 12, and is secured rigidly at one end to said rod and at its opposite end to the roller, so as to constitute practically a spring-roller, which may be of the construction shown or of any other preferred construction. The roller also may be provided with the usual devices for counteracting the action of the spring, if desired, but such devices are not essential in the practical construction of an article of this character. The opposite end of the flexible support 13 is attached to the foot-bar 16, to which is welded or secured in any other suitable manner the outer ends of the tubular sections 4. The disks 10, hereinbefore referred to, are secured rigidly to the opposite ends of said foot-bar 16 in any suitable manner.

Journalled rotatably in and projecting beyond the opposite ends of the tubular rod 11 is a tie-rod 17, and engaging one end of said rod is a nut 19, which clamps the disk 18 against

the outer side of a disk 9, or a head integral with said rod may be employed instead of said nut to clamp said disks together. The opposite end of said rod may carry and clamp the similar disk 18 against the companion disk 9, or said disk may be provided with a screw-threaded opening which is engaged by the threaded end 17^a of said rod. One end of the rod 17 is preferably bifurcated, and a lever 20, approximately Z-shape, is pivotally mounted at its middle, as shown at 21, in said bifurcation in such manner that one arm 22 projects outwardly and the other arm 23 projects inwardly, and said arms are forced by the action of the spring 24 to project through apertures 25 and 26, respectively, in the disk 18, and the outer or upper tubular section 27 of the devices which serve at times as legs or as handles. When the legs are folded to their operative positions the arm 23 of the lever 20 engages the aperture 9^b in the disk 9, as shown clearly in Fig. 6. When in this position it is obvious that the legs and disks 18 carrying the same cannot be operated without first forcing the arms 22 inward and thus disengaging the arm 23 from the aperture 9^b. When the leg occupies its operative or vertical position the arm 23 engages the aperture 9^a of said disk instead of the aperture 9^b, and when it is employed as a handle for the structure to carry sick or wounded people said arm 23 engages the aperture 9^c of said disk, and is prevented from further pivotal operation until it is disengaged from said aperture.

In order that the device may be employed as a table it is desirable that the legs be telescopic. Therefore a small tubular section 28 fits snugly within the section 27 and carries a spring having a pin 29, which is adapted to engage an aperture 30 in the section 27 or an aperture 31 in said section, accordingly as the leg is retracted or extended. Disks 33 carry similar legs, composed of two telescopic sections 27 and 28, which are arranged relative to each other, as described, and said disks are provided with cylindrical bosses 34, which project inwardly and find bearings in the opposite ends of the tubular foot-bar 16 and the disks 10 carried thereby. A tie-rod 35, preferably of rectangular cross-section, extends axially through said disks and projects into the tubular section 27 of said legs, and is provided with a head 36, which bears against one of said disks 33, and with a threaded end 37, which engages a threaded opening in the disk at the opposite end of the foot-bar 16, to clamp said disks firmly in position. A lever 20 is pivotally mounted in one end of said rod, and has outwardly and inwardly projecting arms 22 and 23. A spring 24 tends to force the arm 23 through the aperture 25 of the disk, and into one or another of the openings 9^a, 9^b, and 9^c of the disk 10, which are relatively located in the disk 10, as shown with reference to the disk 9 in Fig. 7 and as shown in dotted lines in the disk 10 in Fig. 3, so that when properly secured in one position or the

other the leg cannot be rotated without first causing the disengagement in the manner hereinbefore described. In both cases—that is, with reference to the leg shown in both Figs. 5 and 6—it is apparent that when said legs are pivotally operated to one position or another their companion legs at the opposite side of the frame will swing or rotate with them to the same positions, owing to the fact that they are secured on the opposite ends of the tie-rods by means of screw-threads.

Mounted loosely upon the telescopic side bars of said frame are a number of rings or loops 38, and threaded through said rings from one side to the other and below the flexible support 13 to act as a spring for the same, is the flexible strip 39. This strip may be of rope, leather, or any other suitable material, and is secured at its ends to the flexible support 13, contiguous to the foot-bar 16. At its middle, at the opposite end of the frame, it extends transversely of the same and is looped around the tubular sections 2, outward of the bifurcated lugs or ears 40, riveted or otherwise rigidly secured to and projecting vertically upward from said sections. A pair of similar lugs 41 project upwardly from said section at a suitable distance from the lugs 40, and pivotally mounted therein are lugs depending from a head-rest 42. Said head-rest is preferably in the form of a U-shaped metallic frame 43, as shown in dotted lines, Fig. 1, covered by any suitable flexible material. Said head-rest, at a suitable point, is also pivotally connected by the break-joint braces 44 with the lugs 40, so that when raised to the position shown in Fig. 1 it will not accidentally collapse, but will easily and quickly yield when properly manipulated.

From the foregoing description it is evident that when the article is to be used as a table it is only necessary to lengthen the legs and to detach the head-rest, and when used as a bed or a stretcher, to shorten said legs and replace the head-rest. When used as a stretcher, however, the legs must be moved to the position shown in Fig. 2, so as to form handles, which may be grasped by persons at opposite ends of the frame. When it is desired to use the article as a chair, the springs 5 and 7 are pushed inwardly by pressing on the pins 6 and 8, respectively, and endwise pressure applied, which causes said sections 3 and 4 to slide within the sections 2 and the structure to assume the position shown in Fig. 3. The head-rest may or may not be removed, as desired; but when it is desired to convey the article from one place to another after it has been retracted to chair form the legs are operated pivotally to the position shown in Fig. 4.

It will be apparent that an article or structure of this character will be found of great service in armies, owing to the fact that it may be employed for various purposes, and can be easily carried by a soldier without increasing by more than a few pounds the weight or load he has to carry. It will also be found

convenient for camping-out parties, and in various other connections not necessary to name herein.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A combination article of the character referred to, comprising a frame consisting of telescopic side-bars, a rigid foot-bar at one end, a spring-roller at the opposite end, a flexible support secured at its opposite ends to said supporting roller and said foot-bar, so that as the article is retracted lengthwise said flexible support will be wound automatically upon said roller, and legs operatively connected to and supporting said frame, substantially as set forth.

2. A combination article of the character referred to, comprising a frame consisting of telescopic side-bars, a rigid foot-bar at one end, a spring-roller at the opposite end, a flexible support secured at its opposite ends to said spring-roller and said foot-bar, so that as the article is retracted lengthwise said flexible support will be wound automatically upon said roller, legs pivotally connected to and supporting said frame; and means to lock said legs at various points of adjustment, substantially as set forth.

3. A combination article of the character referred to, comprising a frame consisting of telescopic side-bars, a rigid foot-bar at one end, a spring-roller at the opposite end, a flexible support secured at its opposite ends to said spring-roller and said foot-bar, so that as the article is retracted lengthwise said flexible support will be wound automatically upon said roller, and extensible and contractible legs connected to and supporting said frame, substantially as set forth.

4. A combination article of the character referred to, comprising a frame, consisting of telescopic side-sections, a rigid foot-bar connecting the same at one end, a tubular rod projecting through and rigidly carried by the same at their opposite ends, disks carried by said tubular sections and provided with a series of apertures, legs provided with disks pivotally mounted upon the projecting ends of said tubular rod and fitting against the first-named disks, a tie-rod extending through said disks and said tubular sections of the frame, and provided with a head engaging one of the last-named disks, and a threaded end engaging a threaded aperture of the other of the last-named disks, so as to clamp said disks firmly against the first-named disks, a spring-actuated lever pivoted in one end of said rod and having a pair of arms, one of them projecting through an aperture in said leg and the other through an aperture in the disk carrying said leg and into one of the apertures of the first-named disk with which it contacts, a spring-roller mounted upon said tubular rod and forming the head-bar of the frame, and a flexible support connecting the

same with the foot-bar, substantially as and for the purpose set forth.

5. A combination article of the character referred to, comprising a frame consisting of telescopic side-bars, a rigid foot-bar, and a head-bar in the form of a spring-roller, a flexible support attached to the spring-roller at one end and at its opposite end to the foot-bar, devices pivoted at the corners of said frame, and means to secure said devices in various positions, substantially as set forth.

6. A combination article of the character referred to, comprising a frame consisting of telescopic side-bars, springs carried internally by certain of said side-bars, and projecting through apertures in the contiguous telescopic sections, so as to secure said side-bars in their extended or retracted position, a rigid bar connecting said side-bars at one end, a spring-roller connecting said side-bars at their opposite ends, a flexible support attached at its opposite ends to said foot-bar and said spring-roller, and devices pivoted at the corners of said frame and adapted to serve as legs or handles, and means to secure or lock said devices in various positions, substantially as set forth.

7. A combination article of the character referred to, comprising a frame consisting of telescopic side-bars, a rigid foot-bar and a head-bar in the form of a spring-roller, telescopic legs attached to said frame at its corners, means to secure them in their extended or retracted positions, a flexible support connecting said foot-bar and said spring-roller head-bar, rings loosely embracing said telescopic side-bars, and a strap laced through said rings and connecting said side-bars at one end and attached to the flexible support at its opposite or foot end, substantially as set forth.

8. A combination article of the character referred to, comprising a frame consisting of telescopic side-bars, a rigid foot-bar and a head-bar in the form of a spring-roller, telescopic legs attached to said frame at its corners, means to secure them in their extended or retracted positions, a flexible support connecting said foot-bar and said spring-roller head-bar, rings loosely embracing said telescopic side-bars, a strap laced through said rings and connecting said side-bars at one end and attached to the flexible support at its opposite or foot-end, and a head-rest pivotally connected near its front end to legs or ears carried by said telescopic side-bars, and pivotally connected to the same near its rear end by a break-joint brace, substantially as set forth.

9. In a combination article of the character referred to, a frame, comprising telescopic side-bars, a spring-roller head-bar, and a rigid foot-bar carrying disks at its opposite ends provided with apertures, leg-carrying disks fitting snugly against said first-named disks and provided with cylindrical bosses which

find a bearing in said first-named disks and
in the opposite ends of the tubular foot-bar,
a tie-rod extending axially through said disks
and said foot-bar, and provided with a head
5 at one end and with a thread at its opposite
end; said head bearing against one of the leg-
carrying disks and said thread engaging the
thread in the other leg-carrying disk, a spring-
actuated lever pivotally mounted in one end
10 of said rod, and provided with an outwardly
projecting arm engaging an aperture in said
leg, and with an inwardly projecting arm en-

gaging an aperture in said leg-carrying disk
and projecting into one of the apertures of
one of the first-named disks, substantially as 15
set forth.

In testimony whereof we affix our signa-
tures in presence of two witnesses.

JOHANN F. SAUERBIER.
KARL M. SAUERBIER.

Witnesses:

S. B. FALOR,
M. R. REMLEY.