Aug. 25, 1953 J. J. SIMMONS 2,649,894

FOLDING STOOL

Filed April 4, 1949

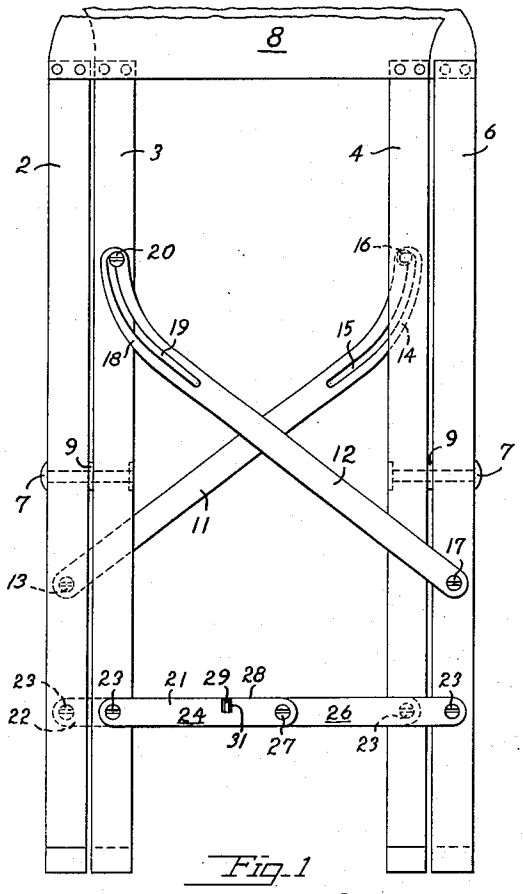


Fig. 1

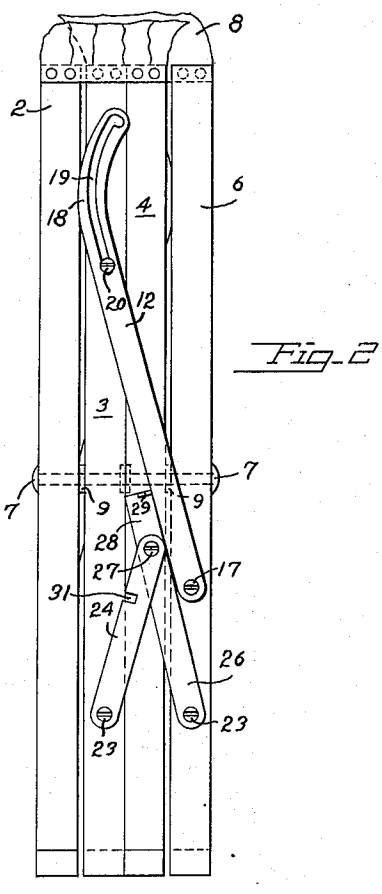


Fig. 2

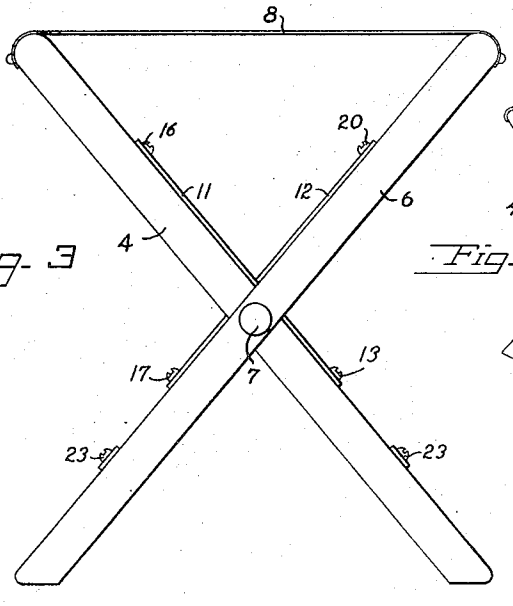


Fig. 3

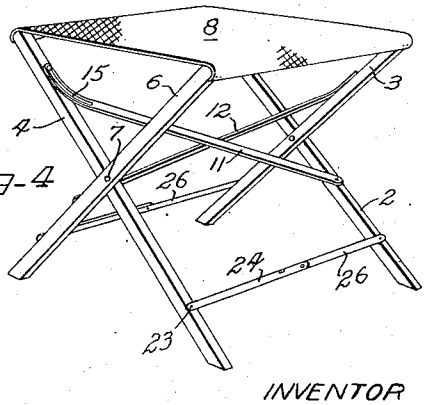


Fig. 4

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FOLDING STOOL

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1 Claim. (Cl. 155—150)

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My invention relates to stools, and in particular to a stool of the folding type.

It is among the objects of my invention to provide a folding stool which folds up flat into spaced pairs of legs and then may be compacted still further to bring the legs together in a flat compact bundle.

The invention possesses other objects which will be explained in the following description of that form of the invention which is illustrated in the drawings. It is to be understood that the invention is not limited to the embodiment shown, but may be included in a plurality of forms as set forth in the claim.

Referring to the drawings:

Figure 1 is a side elevation of my invention in the folded position, a part comprising the fabric seat being broken away to shorten the figure.

Figure 2 is a side elevation showing my invention in its folded and compacted form, a part of the seat being broken away to shorten the figure.

Figure 3 is an end elevation of my invention unfolded to its extended and useable form.

Figure 4 is a perspective view of the stool of my invention, unfolded and showing the relationship of links and legs in position of use.

In the stool of my invention, the legs are pivotally connected together by links in such a relationship that from a position of use in which each pair of legs resembles the letter X, the legs of each pair may first be folded flat, all four legs lying in the same plane and the legs of each pair being close together but the pairs spaced apart; and then the spaced pairs may be brought together in close parallelism to form a flat compact bundle or pack.

In greater detail, my invention comprises a stool having four legs 2, 3, 4 and 6, preferably formed of wood. Legs 2 and 3 form a pair, also legs 4 and 6 form a pair. Thus there is a pair of pairs of legs, the individual legs of each pair being pivoted together near their mid-portions by suitable pivot pins 7. Thus the legs of each pair may be moved from a position of parallelism to a crossed position resembling the letter X, the spread being determined by the length of the fabric seat 8 which connects the upper ends of the legs. Free pivotal movement between the legs of each pair is assured by washers 8 inserted between the legs and carried by the pins 7.

To maintain a spaced parallel relationship between the corresponding legs of each pair, flat links 11 and 12 are interposed between the corresponding legs 2, 4 and 3, 6 respectively. The

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link 11 is pivoted at its lower end below the mid-point of the leg 2 by means of a stud 13; and extends upwardly to terminate in a curved upper portion 14 formed with the slot 15 slideably engaging the stud 16 in the upper portion of the leg 4.

In like manner, link 12 is pivoted at its lower end below the mid-point of the leg 6 by a stud 17; and extends upwardly, terminating in a curved upper portion 18 formed with the slot 19 engaging a stud 20 in the leg 3.

The studs referred to constitute an upper group of four studs, two studs of the group being located above the pivotal connection of the pairs of legs and the remaining studs of the group being located below such pivotal connection.

The flat sides of the links 11 and 12 are separated from each other by a distance equal to the thickness of the legs when the legs are moved into spaced pairs lying in the same plane as shown in Figure 1, thereby allowing ample clearance for the links to turn edgewise to each other when the corresponding legs of each pair are moved to their extended position as shown in Figure 3. The links also maintain the spaced parallelism between the corresponding legs of each pair; and by virtue of being slotted at one end and pivoted at the other, the spaced parallel legs are movable into a compact bundle or pack as shown in Figure 2.

Lateral stability and parallelism in folding is maintained in the structure by linkages 21 and 22, each linkage comprising mutually pivoted links pivotally connected at the free ends by suitable screws 23 to the corresponding legs of the pairs of legs. Each linkage comprises flat links 24 and 26, connected by a pivot pin 27, placed near the end of link 24 and spaced a short distance from the end of link 26, so that an extension 28 having a short flange 29 is left on link 26 to engage with the notch 31 in the link 24, thus forming an upwardly folding knuckle-joint.

The fabric seat 8 is securely tacked to the top of each leg, no cross rails being used in the structure. From the position of use as shown in Figure 3, the folding operation is first the movement of the crossed legs to a flat bundle as seen in Figure 1. This in itself is sufficient to produce an easily carried pack, but the space occupied is then drastically reduced by the further compacting of the spaced pairs of legs to produce the bundle shown in Figure 2 in which the four legs lie closely together in a flat pack. Thus folded, the stool occupies a minimum of storage space and carrying bulk.

I claim:

A four legged stool comprising legs pivotally connected in a pair of pairs, an upper group of four studs, one of said studs in each leg of each pair, means comprising a pair of links each one slotted in its upper portion and slidably engaging one of said group of studs and pivoted on one of said group of studs on the corresponding leg of the other pair, and linkage means comprising a pair of mutually pivotal links having a knuckle-joint therebetween and pivotally connected to corresponding legs of each pair.

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