Dec. 28, 1926. 1,612,080

J. WADDINGTON

DROP SIDE COT

Filed March 6, 1925

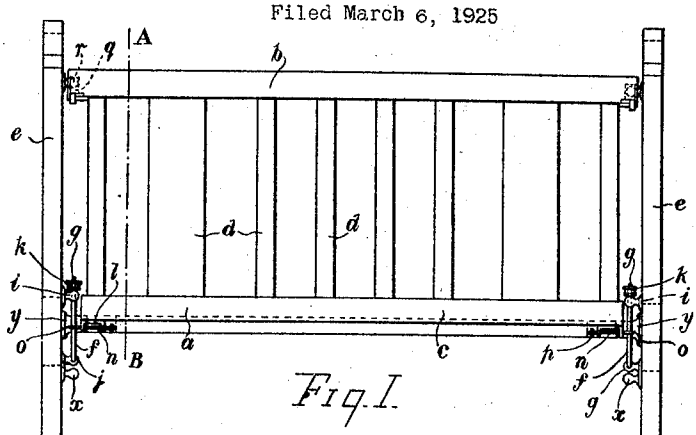


Fig. 1.

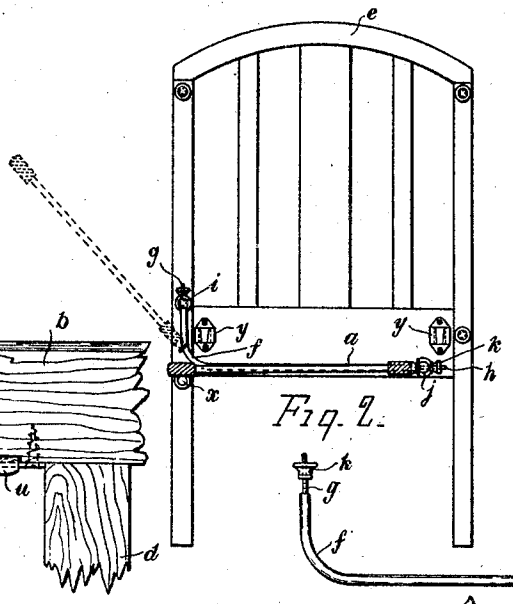


Fig. 2.

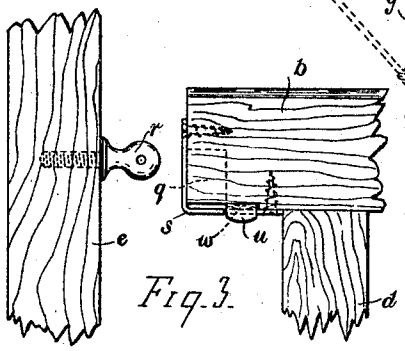


Fig. 3.

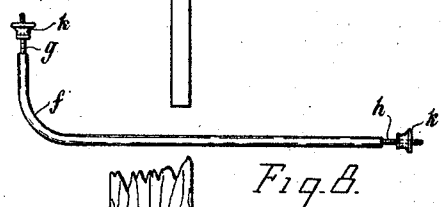


Fig. 8.

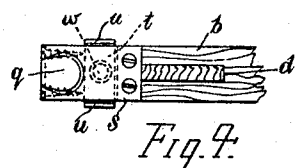


Fig. 4.

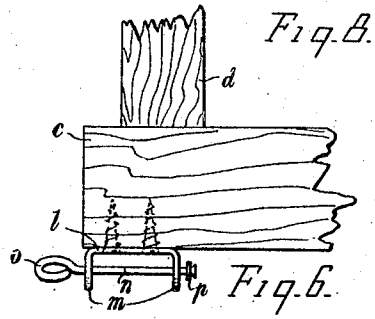


Fig. 6.

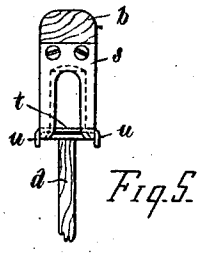


Fig. 5.

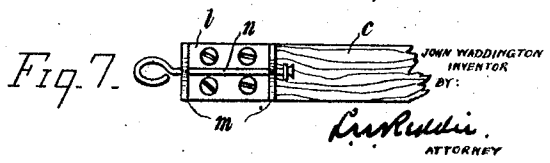


Fig. 7.

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UNITED STATES PATENT OFFICE.

JOHN WADDINGTON, OF BIRMINGHAM, ENGLAND.

DROP SIDE COT.

Application filed March 6, 1925, Serial No. 13,559, and in Great Britain March 7, 1924.

This invention relates to improvements in drop side cots of the type wherein the dropping side is slid into a position between the cot bottom and the floor to convert the cot into a settee.

The object of the invention is to provide a cot in which the sides, while being securely held in the raised position when the cot is serving its ordinary purpose, may be readily dropped down or removed even with one hand without any risk of jamming.

According to the invention a drop side cot of the type referred to above is provided with apertured lugs near the lower corners of the dropping side and swivelling members, carried in the apertured lugs, and capable of a limited longitudinal movement within the lugs, the swivelling members being adapted to slidingly engage guides having substantially horizontal parts and upwardly curved forward ends, during the movement of the dropping side.

The sides of the cot when in the raised position are secured to the ends by dovetail joints and means are provided whereby the joints may be locked or unlocked.

An embodiment of the invention is illustrated in the accompanying drawings in which:

Fig. 1 is a side elevation of a cot with the side in the raised position,

Fig. 2 is a sectional view taken on the line A—B of Fig. 1, and with the dropping side in the lowered position.

Fig. 3 is a front elevational view on an enlarged scale illustrating the method of joining the sides of the cot to the ends, and the locking device for the joint.

Figs. 4 and 5 are respectively underside plan and end elevation of Fig. 3.

Figs. 6 and 7 are elevation and underside plant of a sliding member carried on the cot side, and

Fig. 8 is a view of a supporting rod carried on the cot end with which the sliding members engage.

Referring to Fig. 1, *a* is a cot side formed of upper and lower rails *b*, *c*, and bars or slats *d*, and *e* are the cot ends.

Upon the ends *e* are carried rods *f* having the form shown in Fig. 8, and these rods *f* are secured to the cot ends by passing their screwed ends *g*, *h* through apertured studs *i* *j* projecting from the cot ends and securing by means of nuts *k*.

Upon each end of the lower rail *c* of the cot side is mounted a bracket *l* (see Figs. 6 and 7) having a pair of lugs *m* through apertures in which passes a pin *n*, having a ring *o* formed at one end, and provided with securing means, such as a washer *p*, at the other end.

It will be observed that the pin *n* is capable of a limited lateral movement in the lugs *m* for a purpose to be described later.

The rings *o* are slipped over the rods *f* before the latter are fixed in position on the cot ends so that the lower end of the cot side is guided, during movement by the rods *f*.

In each end of the upper rail *b* of the cot side is formed a dovetail slot *q* with which, in the raised position of the cot side, engages a ball headed stud *r* carried on the cot end *e*. Strengthening plates *s* are provided over the slots *q*, the plates being in the form of angle pieces and slit so as to substantially fit the neck of the ball headed stud *r*. The slits are flared somewhat at the lower end (see Fig. 5) to facilitate the entry of the ball headed studs *r* into the slits in the plates and into the slots *q*. Between the horizontal part of the angle piece *s* and the lower side of the rail *b* a space is provided in which moves a member *t* having finger grips *u* by means of which it may be moved in this space. It will be seen, on reference to Fig. 3, that when stud *r* is engaged within slot *q* and the member *t* is moved to the left it will be impossible to disengage stud *r* from slot *q* without first moving member *t* to the right. A depression *w* is formed in member *t* which engages with the edge of the slit in plate *s* so that member *t* cannot be moved from the locked position without the exercise of a certain amount of pressure.

When the side *a* of the cot is to be lowered the locking members *t* are moved from the locking position (to the right in Fig. 3) and the slots *q* disengaged from the studs *r* by raising the cot side through a short distance. The position of the stud *i* carrying the front end of rod *f* is so determined as to permit this slight upward movement. The side *a* is then lowered, passing through the intermediate position shown in dotted lines in Fig. 2 and being finally pushed to rest in the position shown in full lines in Fig. 2.

When, as is often the case, space in front of the cot is limited the initial part of the

lowering movement of the movable cot side may be effected with the upper rail *b* of the movable side moving substantially vertically, the lower rail moving both downwards and rearwards until the side contacts with the edge of the cot bottom. The upper rail of the side must then be swung outwards and downwards, the lower end however being constantly moved rearwardly so that the upper rail of the moving side constantly approaches the edge of the cot bottom.

During this movement of the cot side the rings *o* slide along the rods *f* and any irregularity in the shape of the rods is allowed for by the limited lateral movement permitted to the pins *n* carrying the rings *o*. For this reason the rings *o* may be made a fairly good fit on the rods *f* whereby the movement of the side is made smooth as well as free.

Means such as studs *x* are provided on the cot ends *e* to support the rail *b* of the cot side in the lowered position. If desired the rail *f* may be arranged to drop slightly towards the rear so as to avoid any possible tendency for the cot side *a* to move forward from its position beneath the bottom of the cot.

It will be readily understood that both cot sides may be arranged to slide away beneath the bottom of the cot but preferably the top and bottom rails of the second side are connected with the cot ends by the ball headed stud and dovetail joints above described, and when this arrangement is used it is desirable that the dovetail slots at the ends of the lower rail should be longer than those at the ends of the upper rail so that the lower connections can be made and the cot side thus held while the upper connections are made. Lugs *y* are provided on the cot ends *e* for the attachment of any suitable type of cot bottom, a spring mattress for example.

The cot may be carried out equally well in wood or metal.

Instead of the guide rods *f* wooden or metal slideways or channels may be provided, if necessary in the cot ends themselves, a fixed lug, T-piece, bearing roller or analogous device being provided on the cot sides to engage and be guided by said slideways or channels.

The lower end of the rod *f* may in some cases be fixed to the leg of the cot end, instead of to the lower rail of the cot end as shown in the drawings, this arrangement allowing of a deeper cot-side being used and accommodated beneath the cot. Moreover, though I have spoken of the guide rods or slideways being carried by the cot ends, I wish to make it clear that the invention also covers such an alternative arrangement as slideways or rods carried by the mattress frame.

I claim:

1. A drop side cot comprising supports, two sides, two ends and a bottom one of said sides being adapted to be lowered to a position beneath the bottom of the cot, swivelling members, apertured lugs carried at the lower corners of the dropping side and in which the swivelling members are mounted, said swivelling members being capable of a limited movement within the apertured lugs longitudinally of the dropping side, and guides having substantially horizontal parts and upwardly curved forward ends with which the swivelling members are adapted to slidingly engage during the movement of the dropping side into said lowered position.

2. A drop side cot comprising supports, two sides, two ends and a bottom, one of said sides being adapted to be lowered to a position beneath the bottom of the cot, swivelling guide rings, apertured lugs carried at the lower corners of the dropping side and in which the swivelling guide rings are mounted, said guide rings being capable of a limited movement longitudinally of the dropping side and shaped metal rods having substantially horizontal parts and upwardly curved forward ends and supported on but spaced from the cot ends over which metal rods the swivelling rings are adapted to slide during the movement of the dropping side into said lowered position.

3. A drop side cot comprising supports, two sides, two ends and a bottom, one of said sides being adapted to be lowered to a position beneath the bottom of the cot and said side being slotted in its upper corners, engaging means on the cot ends adapted to engage within the slots in the upper corners of the dropping side and retaining plates slidably mounted on the dropping side and adapted to be slid over the slots to retain the engaging means on the cot ends within the slots when the dropping side is in the raised position.

In testimony whereof I have signed my name to this specification.

JOHN WADDINGTON.