

F. R. JAMES.
FOLDING BEDSTEAD.
APPLICATION FILED OCT. 25, 1904.

2 SHEETS—SHEET 1.

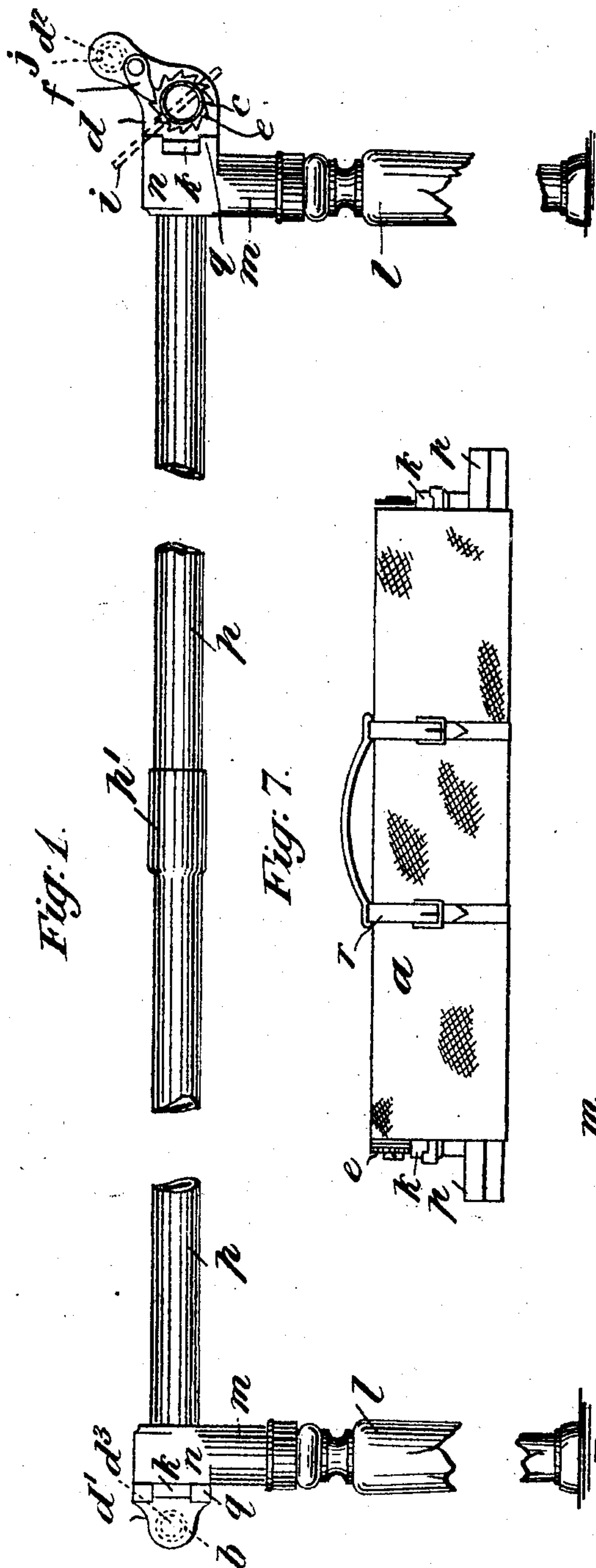


Fig. 1.

Fig. 7.

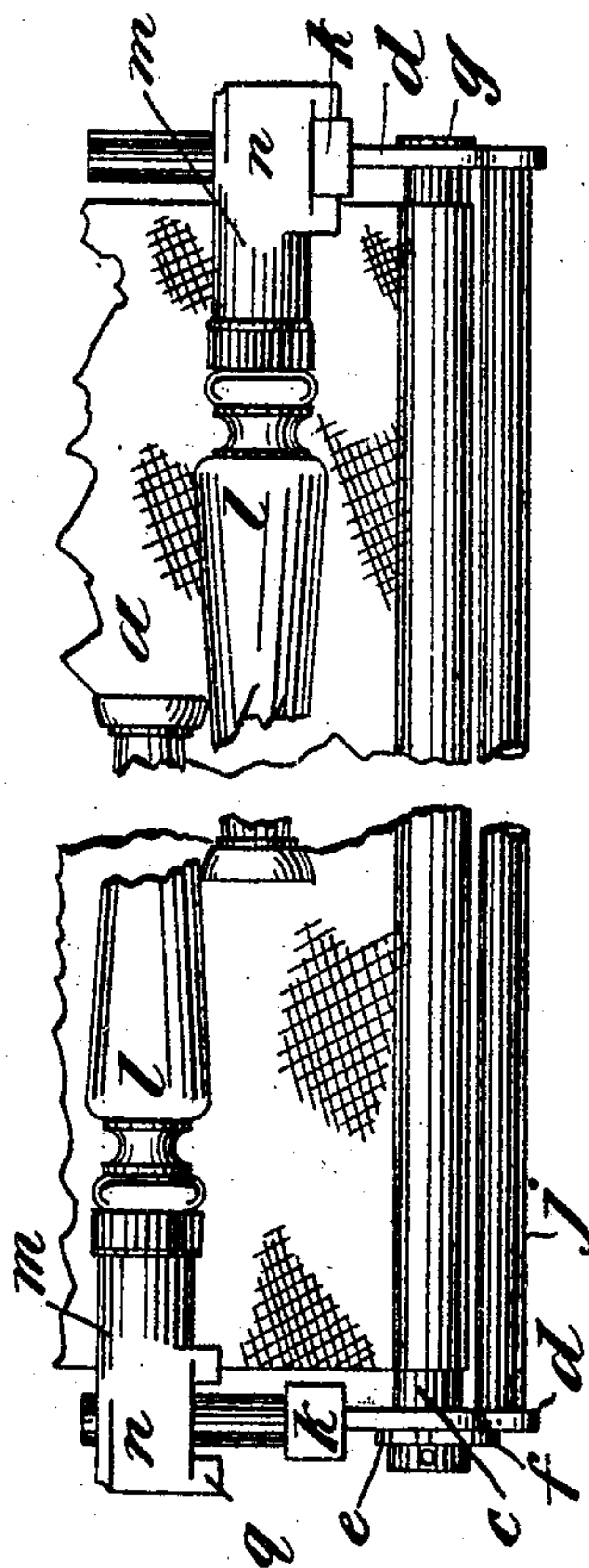


Fig. 2.

Witnesses:
F. C. Maynard
Robert A. Cat

Inventor:
Frederick R. James,
By his Attorney, J. A. Richards

No. 795,618.

PATENTED JULY 25, 1905.

F. R. JAMES.
FOLDING BEDSTEAD.
APPLICATION FILED OCT. 25, 1904.

2 SHEETS—SHEET 2.

Fig: 3.

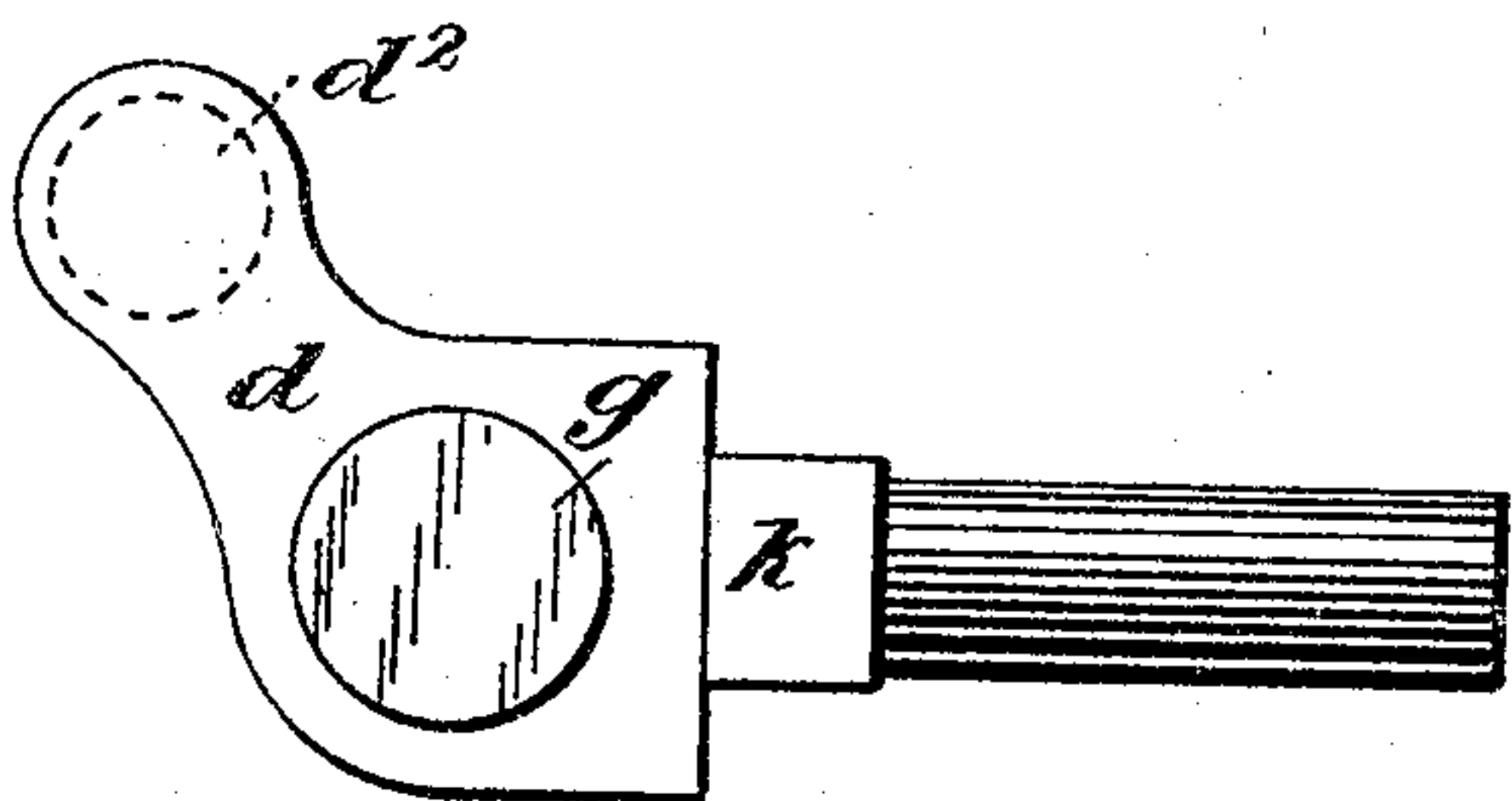


Fig: 4.

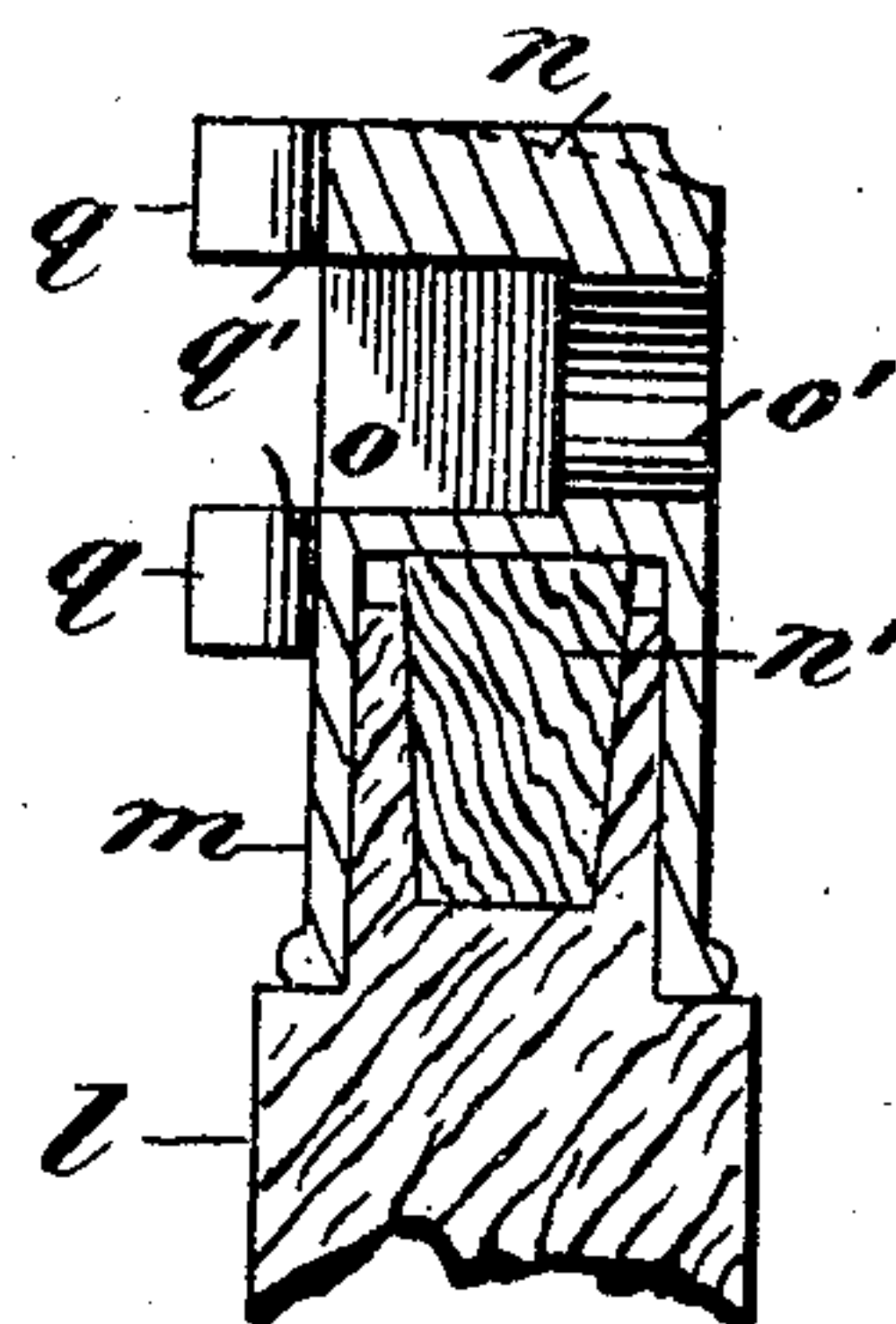


Fig: 5.

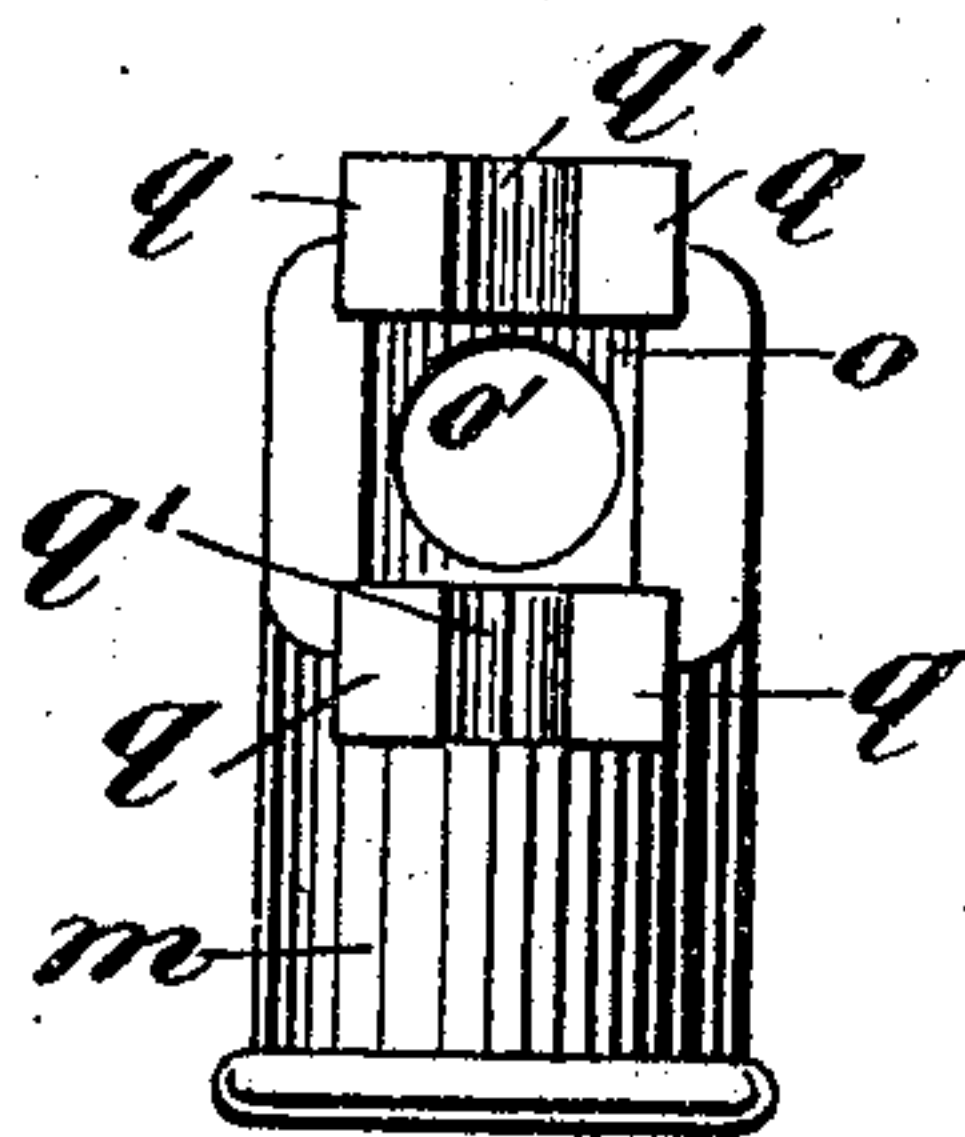
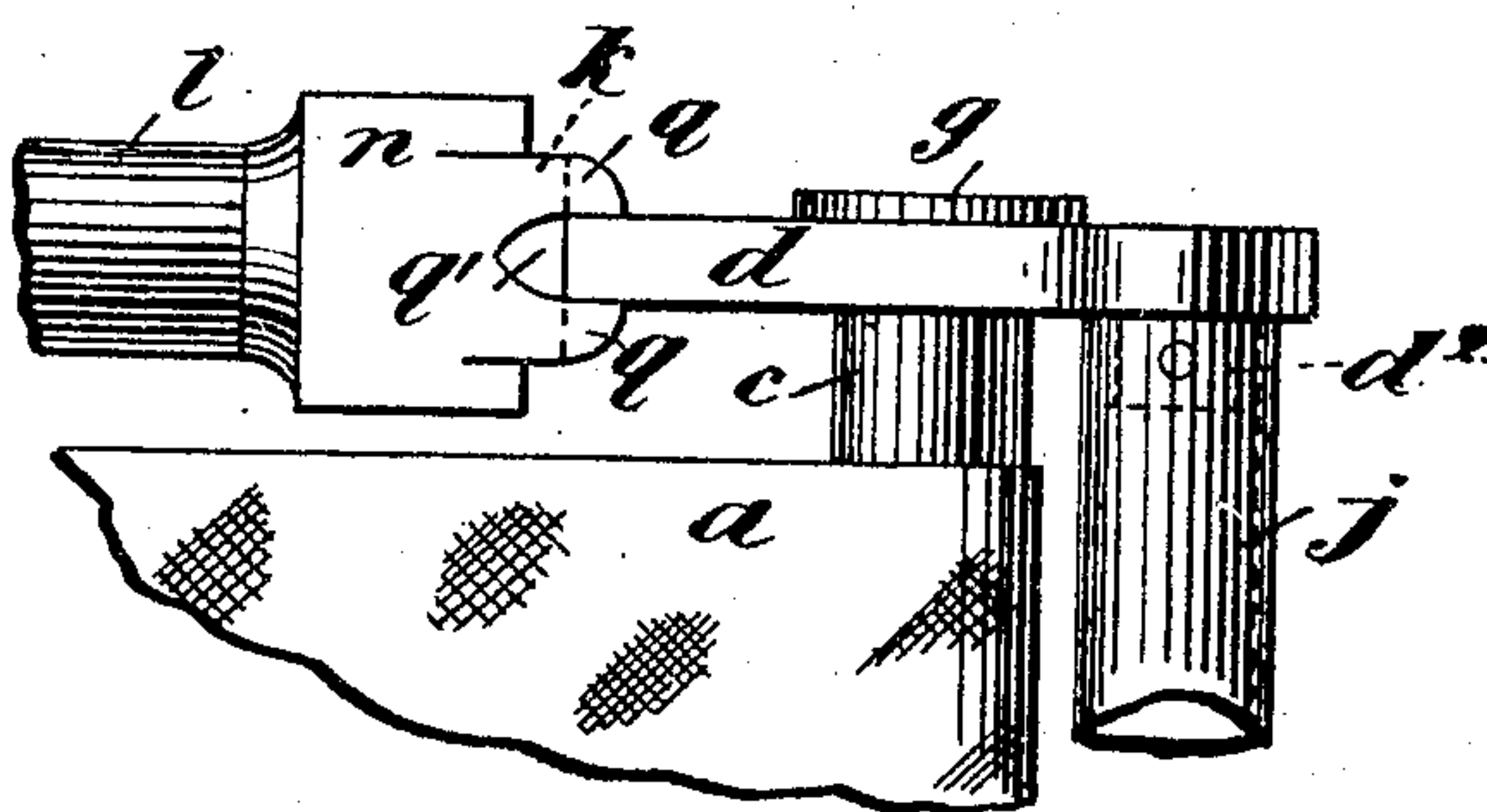


Fig: 6.



Witnesses:

A. E. Maynard,
Robert A. Aar

Inventor:
Frederick R. James,
By his Attorney,
J. H. Richards

UNITED STATES PATENT OFFICE.

FREDERICK REESOR JAMES, OF LONDON, ENGLAND.

FOLDING BEDSTEAD.

No. 795,618.

Specification of Letters Patent.

Patented July 25, 1905.

Application filed October 25, 1904. Serial No. 229,892.

To all whom it may concern:

Be it known that I, FREDERICK REESOR JAMES, a subject of the King of Great Britain and Ireland, residing in the city of London, England, have invented certain new and useful Improvements in Folding Bedsteads, of which the following is a specification.

This invention relates to an improved folding bedstead; and it has for its object to construct a bedstead for military or other use in which provision is made whereby the bedstead may be readily erected or folded and when folded to be capable of being packed in a very small compass together with the mattress, which may be wrapped or folded round the parts, serving to protect them during transport and also to keep them together.

In carrying the invention into effect I provide a length of canvas or other suitable material adapted when the bed is erected to serve as a mattress, and which canvas when in a state of tension holds the various parts in engagement to prevent the collapse of the bed. The ends of the canvas are secured at one end to a stay running transversely of the bed and at the other to a tube revolvably supported at its ends by plates of metal, to which plates are also fixed the ends of a second stay. The stay first described is secured at its ends to plates similar to those just referred to.

Forming part of each of the plates just referred to is a horizontal projection of square or other convenient angular cross-section. Each of the projections is provided with a horizontal pin of circular section. The ends of the plates where they join the projections serve, as will be presently described, as a key, engaging a vertical slot formed in a metal casting secured to the upper end of each of the legs of the bedstead.

The legs of the bedstead may be formed of wood, or they may consist of short lengths of metal tubing. In the present instance wood is employed, having secured to it at one end a metal casting provided with a socket adapted to receive the upper end of the leg and having formed in it a hole running at a right angle to the center line of the leg and part of which hole is of square and part of circular outline. Projections are formed upon the face of the casting upon two opposite sides of the square hole just referred to, and a slot is formed in the said projections. The pin previously referred to passes through the hole in the casting, the square portion thereon engaging the square portion of the said hole,

and the vertical end or edge of the plate carrying the pin engages with the slot. By these means the vertical displacement of the legs is prevented, and at the same time when it is desired to collapse or fold the bedstead the leg may be drawn backward out of engagement with the retaining portions. The leg may then be rotated upon the pin through an angle of ninety degrees, bringing it into alinement with the transverse stays. When in this position, the inner of each pair of legs is secured by again bringing the square portion of the hole into engagement with the square portion of the projection. The tension of the canvas is regulated by rotating the tube, to which the end is secured by means of a tommy or other suitable device, a ratchet-wheel and pawl retaining it when the tension is adjusted.

Tubular or other stays, preferably formed in short lengths connected together in any suitable manner, form the side members of the frame, their ends being secured by means of the projections secured to the plates upon the end stays of the bedstead.

In order that the invention may be the better understood, drawings are appended, in which—

Figure 1 is a side elevation of a bedstead constructed in accordance with this invention. Fig. 2 is a plan of the under side of one end of a bedstead, the legs being in their folded position. Fig. 3 is a side elevation, to an enlarged scale, of one of the plates and the projections secured thereto. Fig. 4 is a side sectional view, to a similar scale, of the upper end of one of the legs. Fig. 5 is a front view of Fig. 4. Fig. 6 is a plan showing the respective parts in engagement.

Referring to the accompanying drawings, *a* indicates a length of canvas one end of which is hemmed to form a loop, through which is passed the transverse stay *b*. The opposite end of the canvas is secured to the roller *c*, formed of metal tube. The roller just referred to is carried by the plates *d*, through which the ends of the roller pass and which ends are provided, respectively, with a ratchet-wheel *e*, with which engages a pawl *f*, carried by the plate *d*, and a collar *g*, designed to prevent its longitudinal displacement. Holes *h* are formed in the end of the roller, through which a tommy *i* is passed to rotate same. When not in use, the tommy *i* may be placed in the roller, a cord or the like serving to secure it to the plate *d*. A tubular

stay j is secured at its ends to each of the plates d , respectively.

The stay b before referred to has secured to its ends plates d' . The stays b and j are secured to the plates $d d'$ by means of projections $d^2 d^3$, formed upon the sides of the respective plates.

Projecting from the plates $d d'$ and at right angles to the stays carrying said plates are horizontal projections k , the inner portions of which are of angular section and the outer portions of circular section, as shown in Fig. 6 of the appended drawings.

l represents legs, which in the present instance are formed of wood, the upper ends being reduced and secured within the tubular portions m of the castings n . The method employed for securing the legs is clearly shown in Fig. 4, from which it will be seen that a conical recess is formed in the upper end of the leg in which is placed the end of a plug n' . When placed in the socket, the plug rests against the end thereof, and as the leg is driven home it is forced into the hole therein, expanding the end of the leg, and thus insuring a permanent and tight joint between the parts. To increase the cohesion between the parts, the outer surface of the end of the leg may be coated with glue or other adhesive substance. I may instead of having the inner walls of the socket parallel form the said socket with a slight taper, the largest diameter being at the inner end. The castings n are perforated, the perforations running through the said castings at right angles to the center line of the legs. The perforations at one end o are of rectangular section of dimensions approximately corresponding to the parts k on plates d and d' , and the perforations at the opposite end o' are circular and of a diameter sufficient to permit the ready passage of the circular portions on the extremities of the projections k .

p indicates the side members of the bedstead, which are formed of lengths of metal tube connected together at p' , as indicated in Fig. 1, on reference to which it will be seen that the end of one of the lengths of tubing is enlarged to form a socket for the end of the other. It is obvious, however, that any other convenient form of connection may be employed. The parts p are secured to the legs by means of the circular extremity of the part k , which when the bedstead is erected is inserted in the end of the said tube p .

Projecting from the face of the casting n are projections q , slotted at q' , the slots when the parts are connected being engaged by the vertical edges of the plates $d d'$, as shown in Fig. 6, and which slots thus assist in insuring the stability of the legs.

Assuming it is desired to fold the bedstead, the canvas is first slackened by turning the roller, by means of the tommy, to permit the pawl to be disengaged from the ratchet-wheel.

This being effected, the tension upon the canvas is slackened, and the side members disengaged from the ends of the projections k . The component lengths of the members p are then disconnected. The removal of the members p leaves the parts n free to be drawn forward out of engagement with edge of plates $d d'$ and the square projections thereon when they may be rotated through an angle of ninety degrees, bringing them into a position parallel with the transverse stays b and j . When in this position, the inner of each pair of legs may be secured against displacement by again engaging the square portion of the hole o with the part k . When thus disposed, the parts comprising the bedstead may be placed together, and the canvas or the like being wrapped around them the whole is secured together by means of a strap r , presenting an appearance similar to that illustrated in Fig. 7 and forming a bundle that may be conveniently packed for transport or carried in the hand.

It will be evident from the foregoing description that the erection or dismemberment of the bedstead may be easily and rapidly effected, and, further, that as the whole is held together by the tension of the canvas or the like forming the mattress the greater the tension thereof the greater the rigidity and the better the connection between the parts.

It will be obvious that instead of forming the legs of wood metal or metal tubing may be employed, a suitable foot being secured thereto to prevent same sinking when the bedstead is placed upon soft ground. Under these circumstances the castings n could be cast upon the upper ends of the legs.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. In a folding bedstead, a frame having longitudinal side members, legs supported to swing on the side members in vertical planes, and means for retaining each leg in both upright and folded positions by sliding it on the side member toward the extremity thereof.

2. In a folding bedstead, a frame having end members connected by a flexible bed-bottom, and also connected by removable rigid side members that are retained in assembled position by the tension of the bed-bottom, legs arranged to swing on the side members in vertical planes, and means for retaining each leg in its upright position by sliding it on the side member toward the extremity thereof.

3. A folding bedstead comprising a length of canvas or other material adapted to form a mattress secured at one end to a roller carried by plates secured to the ends of a transverse stay and at the other to a second stay also provided with plates, means for retaining the canvas in a state of tension, legs provided at their upper ends with horizontal

sockets for engaging horizontal projections upon the plates and by which means the legs are retained in their vertical position, side members formed in lengths and provided with means for effecting their ready connection and adapted at their ends to engage the projections supporting the legs substantially as described and illustrated by the appended drawings.

4. In a folding bedstead adapted when erected to be held together by means of a length of canvas under tension, the means employed for connecting and insuring the stability of the parts comprising a casting to which is secured the leg, a hole in said casting formed

at right angles to the leg and of such outline as to form a socket for a projection partly of angular and partly of circular section secured to the end plate of the end member of the bedstead and arranged at right angles thereto, projections upon the face of the castings slotted to receive the vertical edge of the aforesaid plate substantially as herein described and illustrated by the appended drawings.

Signed at London, England, this 11th day of October, 1904.

FREDERICK REESOR JAMES.

Witnesses:

JOHN H. JACK,
C. H. HARLORD.