

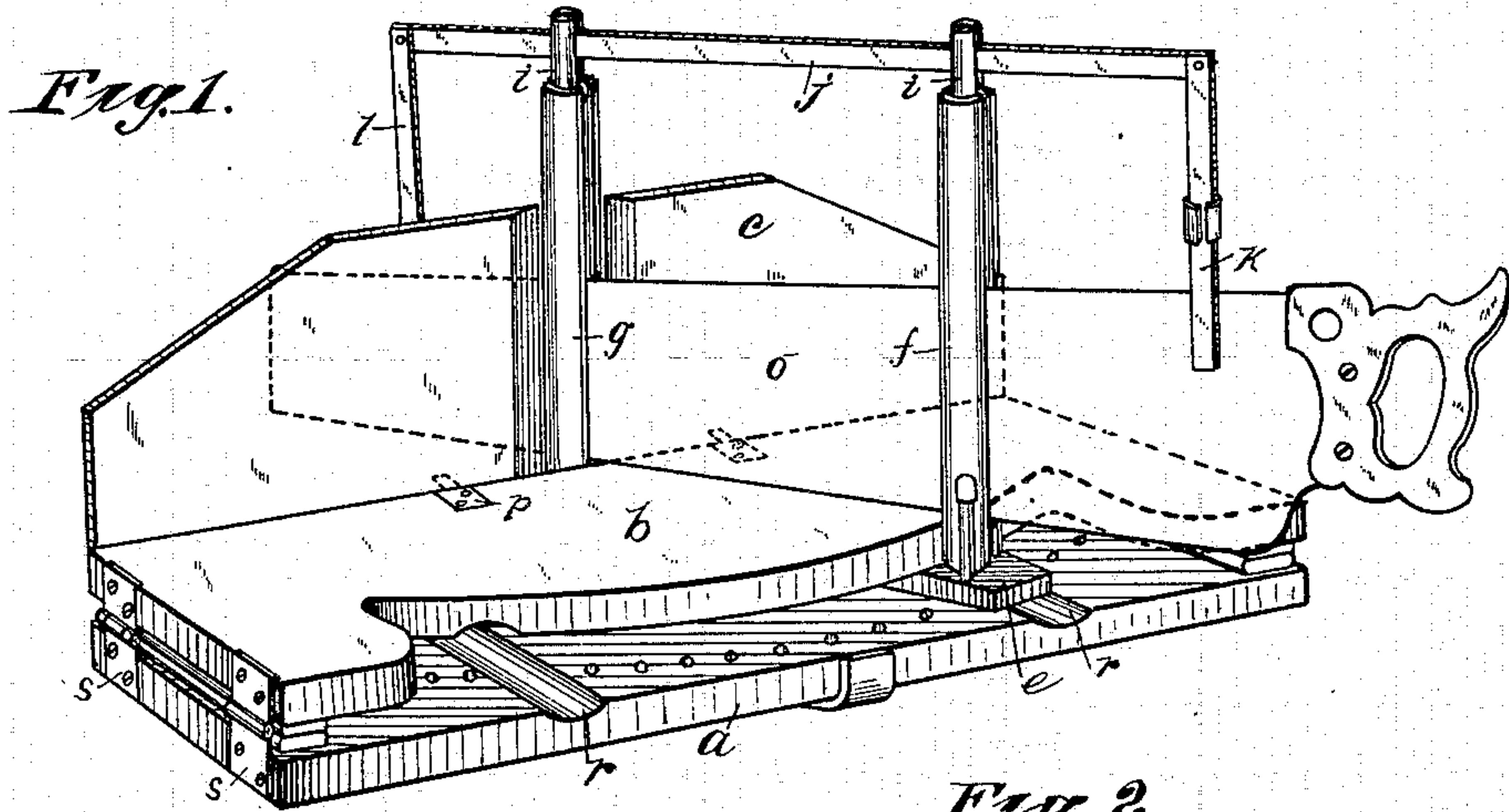
No. 612,111.

Patented Oct. 11, 1898.

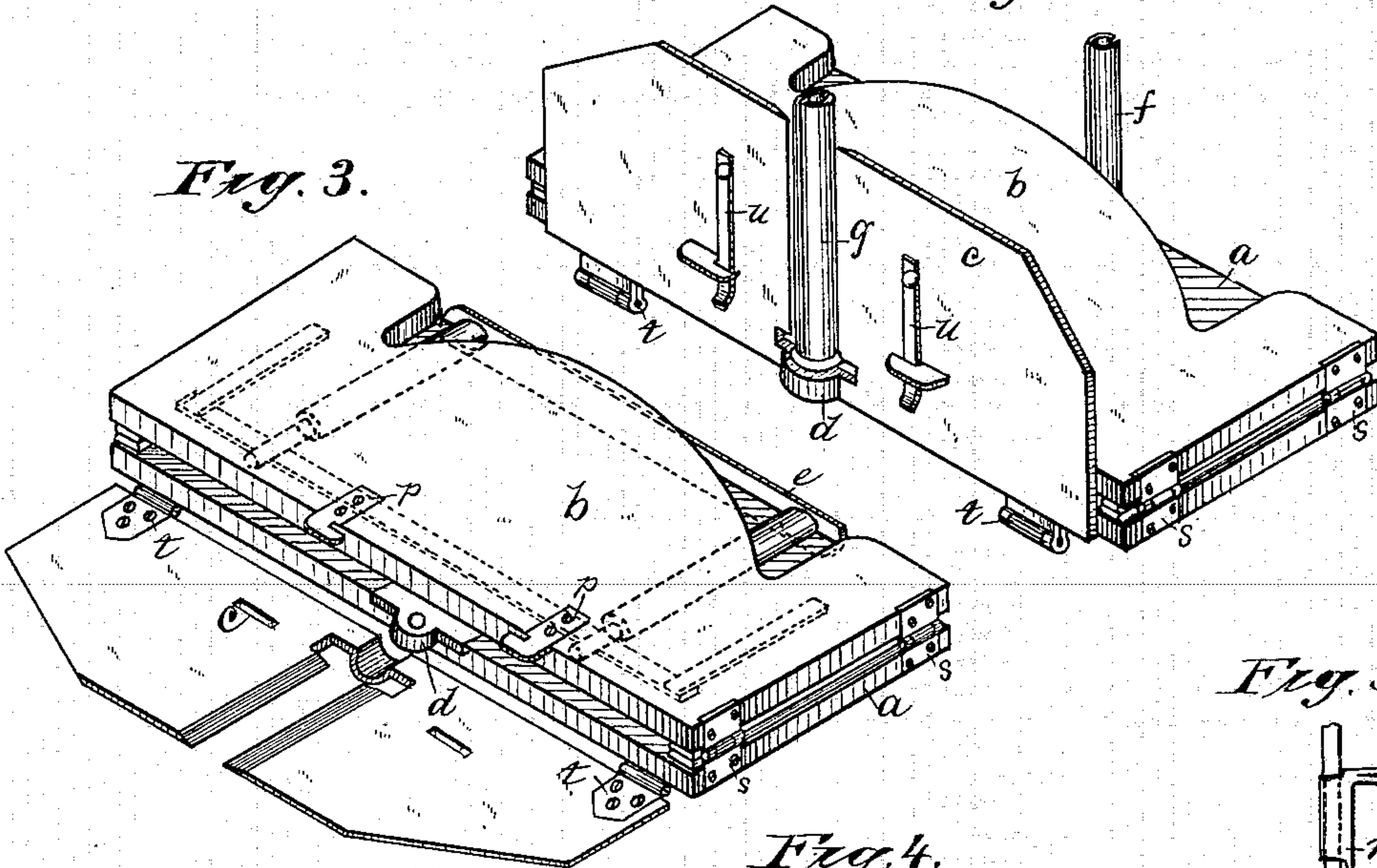
F. S. & H. A. KING.  
MITER BOX.

(Application filed Apr. 13, 1897.)

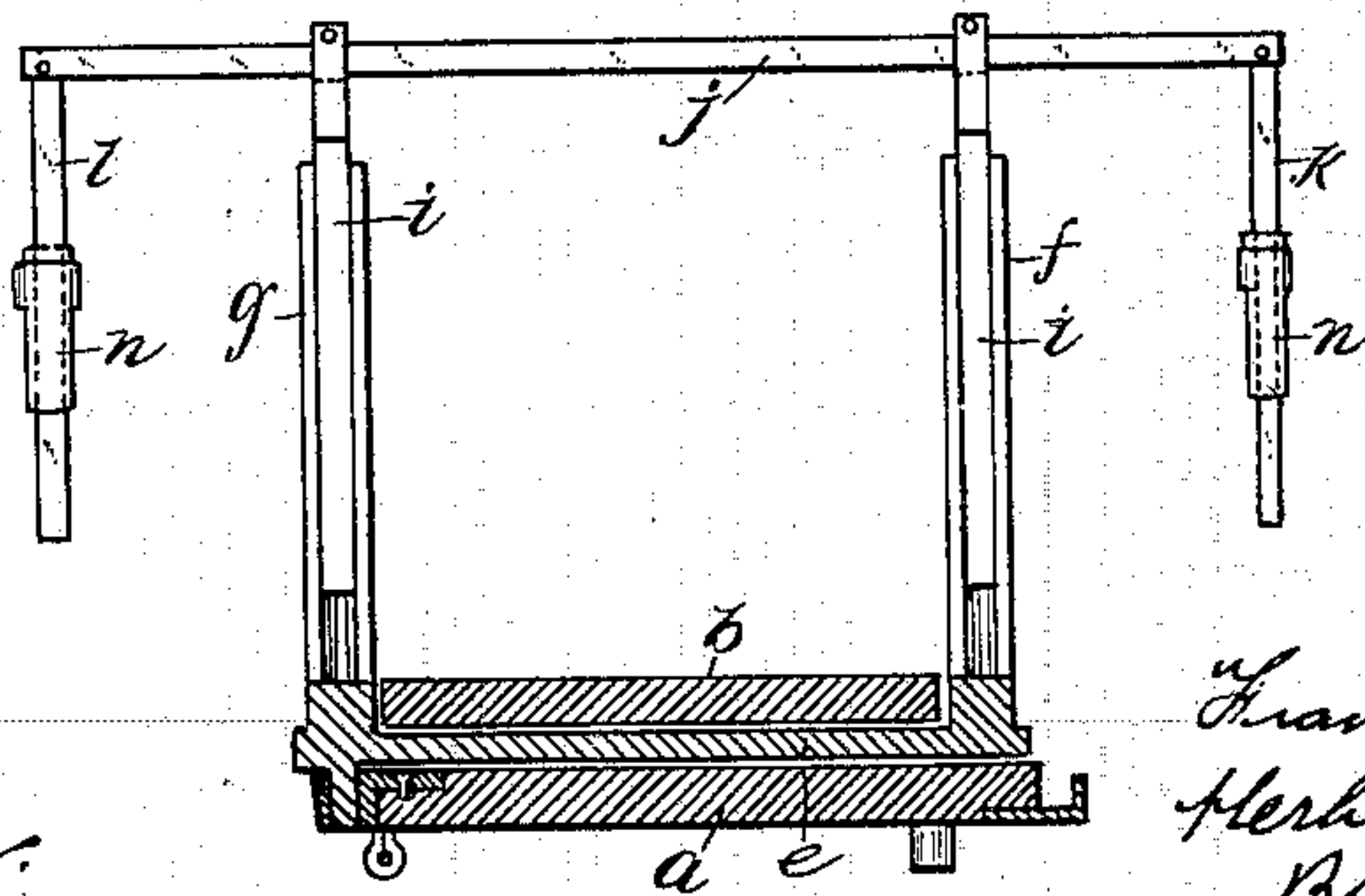
(No Model.)



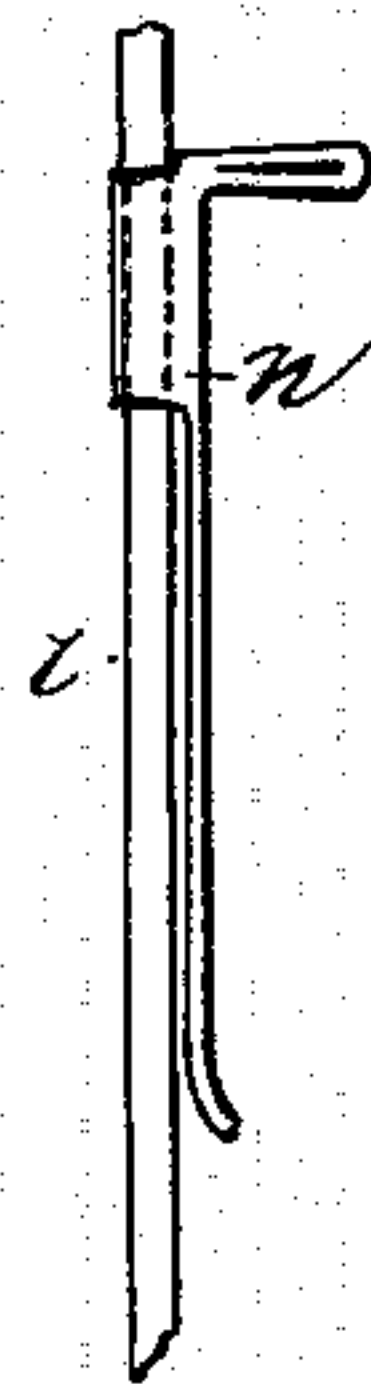
*Fig. 2.*



*Fig. 4.*



*Fig. 5.*



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# UNITED STATES PATENT OFFICE.

FRANK S. KING AND HERBERT A. KING, OF CHICOPEE, MASSACHUSETTS.

## MITER-BOX.

SPECIFICATION forming part of Letters Patent No. 612,111, dated October 11, 1898.

Application filed April 13 1897. Serial No. 631,977. (No model.)

*To all whom it may concern:*

Be it known that we, FRANK S. KING and HERBERT A. KING, citizens of the United States of America, and residents of Chicopee, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Miter-Boxes, of which the following is a specification, reference being had to the accompanying drawings and letters of reference marked thereon.

Our invention relates more especially to the construction of a folding miter-box, our object being to provide a miter-box which may be conveniently folded, so as to take up as little room as possible when being carried or stowed away and which may be conveniently opened and set up for use.

Our object is, further, to provide a miter-box wherein an ordinary handsaw may be employed, and, further, our object is to provide a device generally serviceable and embodying in construction the advantages herein pointed out.

In the accompanying drawings, in which like like letters of reference indicate like parts, Figure 1 is a perspective view of our improved miter-box, showing a saw mounted in position. Fig. 2 is a perspective view of the same as seen from the back of the miter-box, the saw and its supporting-frame being removed. Fig. 3 is a perspective view of the miter-box, showing the same partially folded. Fig. 4 is a transverse sectional view, and Fig. 5 is a detached view of a part of one of the supporting - arms with the spring - clamp mounted thereon.

In detail, *a* indicates the lower portion of the bottom of the box.

*b* indicates the upper portion of the bottom of the box.

*c* indicates the back; *d*, a pivot-plate; *e*, a plate in which the saw-supporting frame is mounted; *f* and *g*, slotted posts; *h* and *i*, supporting-rods; *j*, top rail of saw-supporting frame; *k* and *l*, depending arms; *n*, saw-blade clamps; *o*, saw; *p*, catches; *r*, recesses in the lower part of the base; *s*, hinges between the two parts forming the base; *t*, hinges between the base and back, and *u* locking-latches.

In the construction of our device we first provide a base consisting of an upper and lower portion hinged together at the ends.

The lower portion of the base is provided with a pivot-receiving casting or plate *d*. A plate *e* is provided, having projecting from its lower face immediately below the slotted post *g* a pivot which enters the pivot-opening in the plate *d*, thus allowing the saw-supporting frame to be turned from side to side upon said pivot to the desired extent. The two posts *f* and *g* are mounted in the plate *e* and are slotted as usual for posts in miter-boxes employed in a similar manner. The frame-supporting rods *h* and *i* are also constructed in the well-known manner, they being slotted and entering the posts *f* and *g*. Instead, however, of being limited in the employment of this device to a back saw we provide a suitable frame for supporting the ordinary handsaw, which frame consists, essentially, of a rail or rod *j*, adapted to slide freely in the openings in the supporting-rods *h* and *i*, the rail, however, being of greater thickness than the saw-slots in these rods, so that the rail reciprocates in the openings adapted to receive it. Each end of the rail is provided with a depending arm *k* and *l*, and which depending arms are provided with a clamp *n*, the latter being adapted to engage the saw-blade and press it against the depending arm, so as to support the saw in the desired position.

For the purpose of providing means for engaging saws of different lengths without providing an upper rail of increased length for the saw-supporting frame the depending arm *l* is pivotally mounted, so that if a long saw be employed the free end of the depending arm *l* may be swung outwardly to engage the saw-blade near its end.

The inner faces of the two-part base are recessed, so as to receive the posts *f* and *g* and their supporting-plate *e* between them, and are also recessed so as to receive the saw-supporting frame, all as shown in dotted lines in Fig. 3, so that when so stored away between the two-part base they may be easily transported.

The back *c* is pivotally mounted or hinged to the lower part of the base *a*, so that it may be turned back against the lower part of the base, as shown in Fig. 5. When, however, it is desired to use the device, the back is turned upon its hinges, bringing it to the desired position, as shown in Figs. 1 and 2, and the



back is held firmly in this position by the employment of the catches *p*, which project through openings in the back, each catch being preferably provided with an offset under which the latches *u* engage.

The front edge of the upper portion *b* of the base is formed in a curved line, as shown, the curvature being that of a circle having for its center the center of the pivotal opening in the plate *d*, and a suitable locking device is attached to the free end of the plate *e*, so that the free end of the plate may be locked either to the lower part *a* of the base or to the front edge of the upper part *b*, suitable engaging means being provided so that the frame may be set to saw at a right angle and at various other angles, as desired.

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

1. In a miter-box, the combination of a two-part base with space between them for the bar *e*, a back hinged to the lower base and adapted to be folded back to lie against the under side of the base, and means to hold the back in its opened position, substantially as shown.

2. In a miter-box, the combination of a two-part base having a space between the parts for the saw-guide and supporting mechanism when laid flat, a back mounted to fold against the base, and a suitable saw-supporting frame, substantially as shown.

3. The combination in a miter-box; of a base, and a back hinged together whereby they may be folded, the base consisting of an upper and lower part recessed on their inner faces to receive the saw-supporting frame, substantially as shown.

4. The combination in a miter-box of a suitable base, a suitable back, a pivotally-mounted plate *e* having posts *f* and *g*, rods *i* mounted in said posts, a rod *j* mounted to slide in the rods *i*, depending supporting-arms *k* and *l* secured to the rod *j*, and clamps *n* mounted on the depending arms *k* and *l* and vertically adjustable thereon substantially as shown.

5. The combination in a miter-box, of a suitable base; a back hinged thereto, the back being provided with latch-plate openings, latch-plates *p* mounted on the base and adapted to project through said openings in the back, and latches *u* adapted to engage the latch-plates, substantially as shown.

6. The combination of a base consisting of the parts *a* and *b* hinged together, a back *c* hinged to the lower part of the base, a plate *d* provided with a pivot-opening and secured to the lower part of the base, a post-supporting plate *e* provided with a pivot adapted to engage the opening in the plate *d*, posts *f* and *g* mounted on the plate *e*, rods *h* and *i* mounted in the posts, a saw-supporting frame consisting of the rod *j* having depending arms *k* and *l* and clamps *n* mounted on the depending arms, all constructed and operating substantially as shown.

7. The combination in a miter-box, of suitable supporting-posts, rods *h* and *j* mounted therein, a supporting-frame adapted to engage and support the saw, a part of the saw-supporting frame consisting of a depending arm as *l* pivotally attached to the rod *j*, and having vertically-adjustable spring-clamps mounted thereon substantially as and for the purposes shown.

8. The combination in a folding miter-box of a lower base as *a*, a back hinged thereto and adapted to be folded against the lower face of the base when closed and to stand at right angles thereto when open, a supplementary base as *b* hinged to the lower base, recesses formed between the inner faces of the bases to receive the saw-holding mechanism, means to lock the back in its open position, and saw-holding mechanism pivotally and removably mounted on the base substantially as shown.

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