No. 826,620. PATENTED JULY 24, 1906.

S. STEPHENS.

GALLEY LOCK.

APPLICATION FILED AUG. 19, 1905.

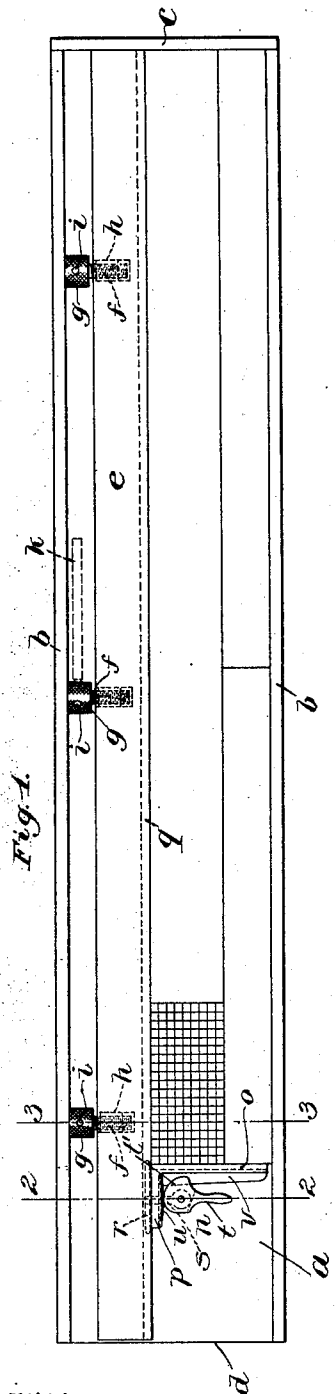


Fig. 1.

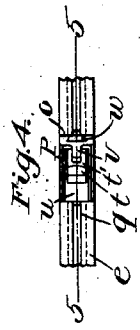


Fig. 4.

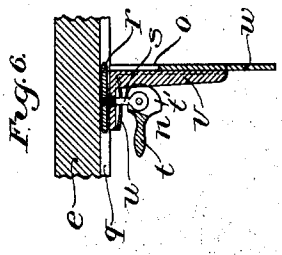


Fig. 6.

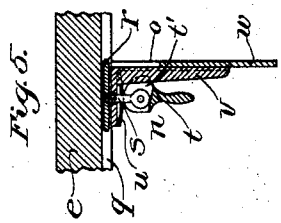


Fig. 5.

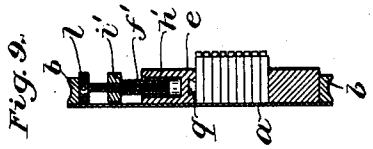


Fig. 9.

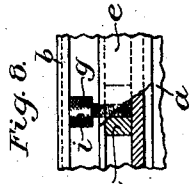


Fig. 8.

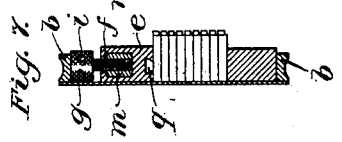


Fig. 7.

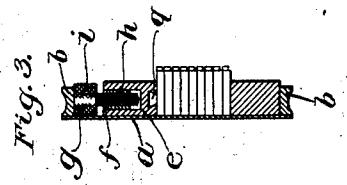


Fig. 3.

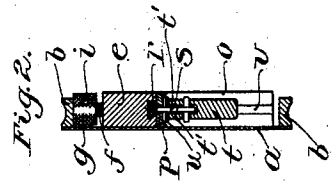


Fig. 2.

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GALLEY-LOCK.

No. 826,620. Specification of Letters Patent. Patented July 24, 1906.

Application filed August 19, 1905. Serial No. 274,817.

To all whom it may concern:

Be it known that I, SAMUEL STEPHENS, a citizen of the United States, residing at Somerville, in the county of Middlesex and State of Massachusetts, have invented an Improvement in Galley-Locks, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

My invention relates to printers' galley-locks, and particularly to the provision of light strong durable locking means so constructed as to permit accurate but rapid work.

My invention will be best understood by reference to the following description, when taken in connection with the accompanying illustration of one specific embodiment thereof, while its scope will be more particularly pointed out in the appended claims.

In the drawings, Figure 1 shows in plan a printer's galley provided with locking devices constructed according to one embodiment of my invention. Fig. 2 is a section through the end-lock on the line 2 2 in Fig. 1. Fig. 3 is a section through one of the side-locking devices on the line 3 3 in Fig. 1. Fig. 4 is an end view of the end-lock. Fig. 5 is a longitudinal section through the end-lock in its locked position. Fig. 6 is a similar sectional view showing the unlocked position of the end-lock. Fig. 7 is a sectional view similar to that shown in Fig. 3, but illustrating a modification thereof. Fig. 8 is a detail in plan and in partial section of the block shown in Fig. 7, and Fig. 9 shows in section a modified form of side-lock.

In Fig. 1 I have shown the usual printer's galley *a*, having the raised sides *b b* and raised end *c*, the opposite end *d* being left open. This galley is provided with the usual sidestick *e*, provided with suitable side-locking devices by which the type are held in place. In the illustrated embodiment of my invention these consist of a plurality of screws *f*, herein three in number, provided each, Fig. 3, with the knurled head *g*, the end of which is adapted to bear against the side *b* of the galley. The threaded portion of each screw engages a threaded bushing *h*, fixedly secured within the body of the stick, so that in the position shown in Fig. 3 when the screws are turned in the proper direction the stick is forced away from the galley side and acts to clamp the type in position. The knurled heads of the screws project slightly above the galley side, so that the type-setter by running his thumb along the latter as a guide can readily and quickly lock the stick by a single movement of the hand.

The hand or thumb locking will suffice for holding matter securely for ordinary purposes—such, for example, as proving on the press, storing the galleys on racks or in cabinets—and it does not clamp or bind the type so fast as to strain the galley. In order to provide means for additionally tightening the screws, if desired, where additional force is necessary—for example, when the galleys are first locked upon the press—I have provided additional lever-locking means. For this purpose each screw-head is provided with a plurality of holes *i*, bored radially in the knurled head thereof adapted to be engaged by a tool, such as the removable lever or pin *k*. (Shown in dotted lines in Fig. 1.) By means of the removable pin each screw can be additionally tightened and the stick set up as securely as desired.

By so constructing the locking device that the screws adjustably thread in and out of the stick itself the maximum free space available for the type in the galley is secured, and the waste space between the stick and the galley side may be reduced to that required merely for the knurled heads of the screws, and these, if desired, may be made of even lesser thickness than shown in the drawings.

Although the locking devices illustrated contract into a small space, there is sufficient range of adjustment afforded for ordinary purposes. If it is desired to use the same stick upon galleys of greater width, where it may be desirable to have greater range of adjustment, use may be made of the modification illustrated in Fig. 9. Here the screw *f'* has threaded into its head an auxiliary adjusting-screw *l* to a sufficient depth to permit an additional lengthening of the locking device if it be required. The screw *l* may be screwed down with its head against the head of the screw *f'*, and the two turned as a unit, or when the stick needs to be set farther away from the side than is possible with the single screw then the screw *l* may be withdrawn to the desired extent and the adjustment made, as before, by turning the screw *f'*. The threads upon the screw *l* may be right-handed or left-handed, according as a differential or an accumulative adjustment of the two screws is desired.

Instead of having the fixed bushings *h*, into which the side-locking screws thread, slidable threaded blocks *m*, Figs. 7 and 8, may be employed, the stick being mortised throughout its length for their reception. These blocks being slidable lengthwise the stick, the locking-screws may be moved to any desired position lengthwise the same and there used to clamp the type.

To lock the end of the galley, I provide the sliding end-locking device *n*, having the bearing-face *o*, adapted to rest against the type and base-piece *p*, which is slidable along the face of the sidestick *e*. To fix the end-lock in desired position, and thereby hold the type lengthwise the galley, the face of the sidestick is provided with a dovetailed groove *q*, in which slides the clamping-shoe *r*, fastened to the threaded stud *s*, the latter passing through the base member *p* and being pivotally connected to the manually-operated cam member *t*, as shown in Figs. 2, 5, and 6. The cam *t* when thrown outward from the position shown in Fig. 6 to that shown in Fig. 5 is brought to bear against the stiff leaf-spring *u* and draws the shoe against the inclined sides of the dovetailed groove to clamp the lock in position. The interposition of the spring between the cam and the shoe gives a yielding pull and avoids excessive pressure and the likelihood of injury to the sidestick.

The threaded attachment of the shoe *r* to the stud *s* provides means for taking up wear or adjusting the holding-pressure, for by merely lifting the stick from the galley and giving the end-lock a half-turn in one direction or the other about the fixedly-held shoe the stud is adjusted in or out of the latter and the tightness of the clamp increased or diminished. The ends of the shoe are shown beveled or rounded to reduce the wear and avoid any binding action upon the walls of the groove.

Since the cam-lever is moved in its locking movement from a position lengthwise the galley (shown in Fig. 6) to a position crosswise the latter, (shown in Fig. 5,) it is therefore moved toward the type, and the movement serves to press the lock more firmly against the type rather than to withdraw the lock away from the same. The cam-lever is secured to the stud *s* only, and is thereby loosely held upon the slide; but in its closed position the projecting cam-ears *t'* are caused to embrace the rib *v* upon the slide, and thereby to be fixedly held against displacement in the locking position of the cam.

If desired, for the purpose of using the end-lock shown in connection with a wider galley the bearing-face *o* of the end slide may be made extensible by any suitable means—such, for example, as by the extensible slide *w*, dovetailed into the face *o* of the end-lock, as indicated in Fig. 4. By this means the end-lock may be used in a galley of the designed width, as shown in Fig. 1, or may be transferred to a wider galley and be made to provide a wider active face by slightly extending the slide *w*. It will be seen by referring to Fig. 2 that the diameter of the screw-heads *i* is less than the thickness of the stick *e*, while the depth or thickness of the end-lock is substantially the same as that of the sidestick, thus bringing all the locking parts within the limits of the top and bottom planes of the sidestick. This permits not only the reversal of the end-lock relatively to the sidestick, but also the reversal of the sidestick with the attached shoe—that is to say, the stick, with its attached locking parts, may be used with equal effectiveness in any position in which it can be applied to the galley with either its top or its bottom face resting upon the base thereof, for there are no locking parts projecting above or below the limits of the stick to prevent this advantageous use thereof. For example, the galley may be held for general purposes with the closed end thereof at the right of the operator and the end-lock operated from the left hand, or for machine-work the galley may be held with the closed end at the left and the locking devices operated from the right hand, the same stick *e*, with the attached locking device, being used in a reversed position.

While I have shown and described one form of my invention in detail and with particularity, it is to be understood that the same is not limited to the form or arrangement of parts disclosed, but that wide departures may be made therein without deviating from the spirit of my invention.

I claim—

1. In a printer's galley-lock the combination with a sidestick, of locking devices therefor comprising threaded bushings secured within the body of said stick and locking-screws engaging the same, the latter having knurled heads adapted to lie between the sides of the stick and the galley respectively.

2. In a galley-lock, the combination with the sidestick, of locking devices therefor comprising screw-threaded bushings fixedly secured within the body of the stick and locking-screws engaging said bushings and having knurled heads arranged between the sidestick and the side of the galley and of no greater diameter than the height of the sidestick.

3. In a galley-lock, the combination with the sidestick longitudinally grooved, of an end-locking device comprising a clamping-shoe arranged in said groove, a slide having a bearing-face and a base-piece arranged next to the grooved face of the sidestick, a stud mounted in the base-piece and carrying the clamping-shoe, and a cam pivoted to said stud and adapted to draw the slide into forcible contact with the sidestick.

4. In a galley-lock, the combination with the sidestick longitudinally grooved, of an end-locking device comprising a clamping-shoe arranged in said groove and having beveled or rounded ends, a slide having a bearing-face and a base-piece arranged next to the grooved face of the sidestick, a stud mounted in the base-piece and carrying the clamping-shoe and a cam pivoted to said stud and adapted to draw the slide into forcible contact with the sidestick.

5. In a galley-lock, the combination with the sidestick longitudinally grooved, of an end-locking device comprising a clamping-shoe arranged in said groove, a slide having a bearing-face and a base-piece arranged next to the grooved face of the sidestick, a stud mounted in the base-piece and carrying the clamping-shoe, a cam pivoted to said stud and adapted to draw the slide into forcible contact with the sidestick, and a spring interposed between the cam and the base-piece.

6. In a galley-lock, the combination with the sidestick longitudinally grooved, of an end-locking device comprising a clamping-shoe arranged in said groove, a slide having a bearing-face and an extensible slide therein, and a base-piece arranged next to the grooved face of the sidestick, a stud mounted in the base-piece and carrying the clamping-shoe and a cam pivoted to said stud and adapted to draw the slide into forcible contact with the sidestick.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SAMUEL STEPHENS.

Witnesses:

THOMAS B. BOOTH,

ROBERT H. KAMMLER.