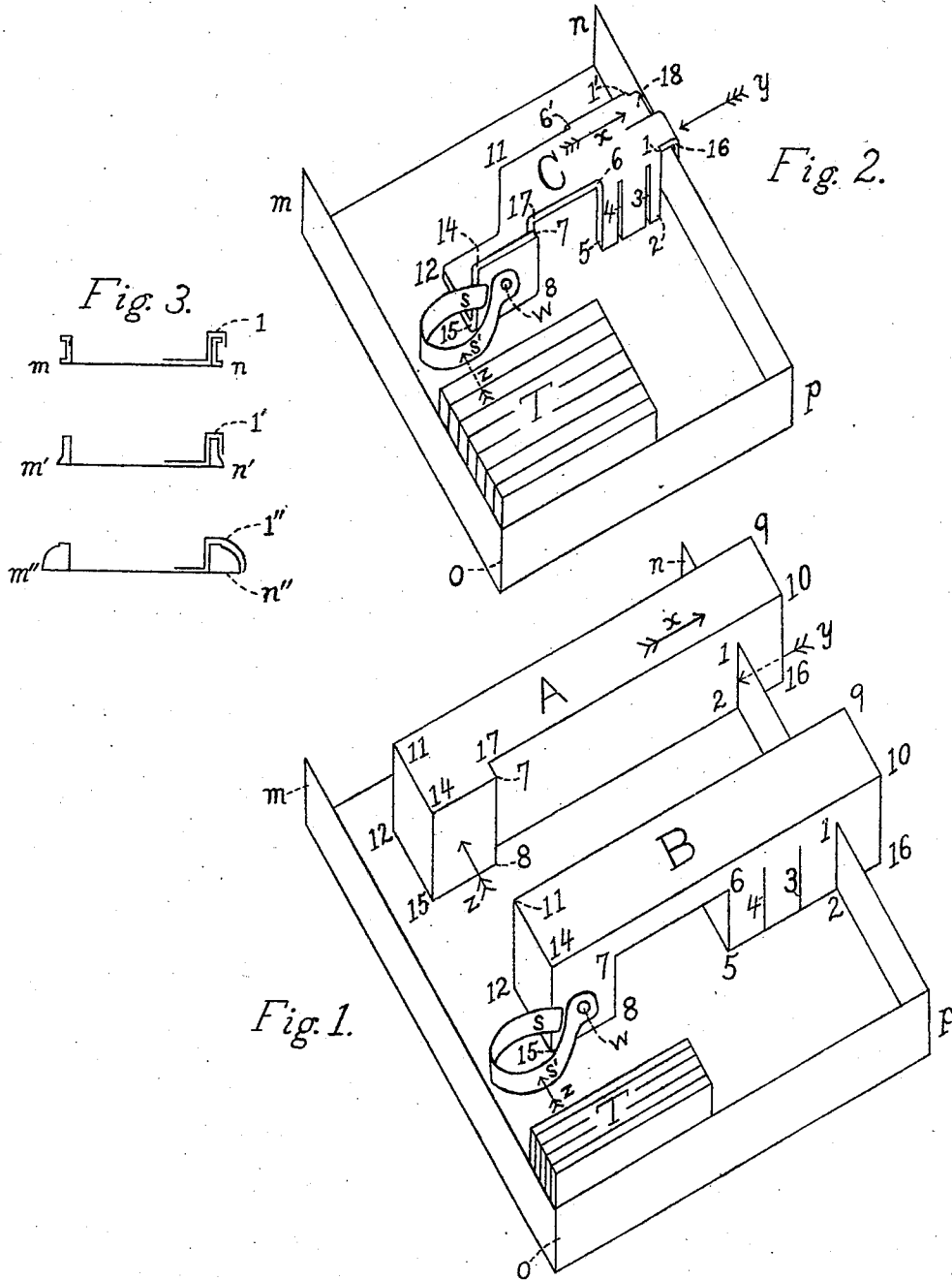


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 END LOCK OR STOP BAR FOR PRINTERS' GALLEYS.
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935,653.

Patented Oct. 5, 1909.



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END-LOCK OR STOP-BAR FOR PRINTERS' GALLEYS.

935,653.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLISTON WIRT GREENWOOD, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful End-Lock or Stop-Bar for Printers' Galleys, of which the following is a specification.

My invention consists of improvements in end-locks or stop-bars for holding columns of type or linotype slugs in printers' galleys.

The object of my invention is to provide an end-lock for this purpose which is effective, easy of adjustment, simple and cheap in construction, which appropriates little space in the galley, and, furthermore, which can be used with galleys of different widths, and which can be manufactured in forms suitable for application to the various styles of galleys now in common use. I attain these objects by the devices shown in the accompanying drawing, in which—

Figures 1 and 2 each show in perspective a conventional galley, with a portion of a column of type in position, and the end-locks or stop-bars illustrating my invention are designated by the letters A, B and C. Fig. 3 shows, on a smaller scale, end sectional views of the side walls and bottom of common forms of galleys now in use, and also shows suitable modification of the slots in the stop-bars, adapting them to engage the side-walls of said galleys.

Similar letters and numerals of reference indicate corresponding parts of A and B in Fig. 1, and also of C in Fig. 2.

A more particular description of my invention, with reference to the drawing in detail, follows.

The simplest form of my invention is shown in the stop-bar A, Fig. 1, in which the points 12, 15, 8, 2 and 16 are in the plane of the bottom of the galley $m-n-o-p$. The points 11, 14, 7, 17, 10 and 9 are in a plane parallel to the bottom of the galley, and in elevation above said bottom said plane lies between the upper edge of the side $n-p$ of said galley and the upper surface of the type, shown at T. The side $n-p$ of the galley is embraced by the stop-bar, said side passing through the slit 1-2 in the under side of the bar. By means of this slit the stop-bar is held in an approximately transverse position across the galley; that is, in a position approximately parallel to the end $o-p$ of said galley. The stop-bar is

designed to slide toward or from the type, along the side $n-p$, while engaging said side by means of said slit. The surface 15-14-7-8 is offset or raised from that side of the stop-bar which faces the type, for the purpose of giving a bearing for the type at the end of the stop-bar farthest from the slit engaging the side of the galley. If the surface 15-14-7-8 be brought into contact with the end of the type-column, any pressure or impact of the type against said surface in the direction of the arrow z would result in pressure at x and y , by diagonally opposite sides or edges of the slit, upon the inclosed side $n-p$, thus clamping the block firmly to said side and preventing the displacement of the type toward the foot $m-n$ of the galley.

The stop-bar B operates upon the same principle of clamping the edge $n-p$ of the galley by the sides of the slit engaging said edge, when pressure is applied at the other end of the stop-bar, as described above. However, in place of the raised surface of the stop-bar, a spring $s-s'$, pivoted at w , is designed to be pressed against the end of the column of type. Thus, if the block B be slid along the edge of the galley until the spring $s-s'$ is compressed by the type T, the pressure of said type against said spring at z will result in the clamping of the bar B upon said edge $n-p$, in the same manner as described above as to the block A, except that the type will be constantly locked in position until pressure on the spring is released, as by a twisting movement which compresses the spring still farther and at the same time pushes the opposite end of the block or stop-bar toward the foot of the galley. The stop-bar B also has the section 8-7-6-5 removed from its under side in order to permit the use of the common form of side-stick for locking the side of the column of type in the usual manner. (The side-stick and means for locking same are not shown in the drawing.) In addition to the slit 1-2 for engaging the side $n-p$ of the galley, there are other slits shown at 3 and 4 which may be used for the same purpose, thus adapting the same end-lock B to galleys of a narrower width than shown. Furthermore, the spring $s-s'$ may be turned through 180° on the pivot w so that its end s may bear upon the edge 7-8, instead of on the edge 14-15, thus making the stop-bar still shorter, to adapt it to a still narrower

galley. Thus, with the spring reversed and the slit 4 engaging the side of a galley, the block B as shown could be used with a galley of only half the width of the galley shown. In other words, if the galley $m-n-o-p$ as shown be 8 inches in width, then the block B as shown could be used in a 4-inch galley. (The common construction for dumps, racks and slides for holding and storing printers' galleys is such that the bottoms of the galleys rest on inclined planes, and the side of each galley against which the column of type is placed rests against a side-wall of the rack or slide holding it. These racks or slides are wide enough for the wider galleys, hence the projection of a stop-bar beyond that side of a galley opposite to the type does not interfere with putting the galley away, whereas if the stop-bar projected over the side of the galley next the type, as is common in other forms of stop-bars, it would scrape against the wall of the slide in inserting or removing the galley, thus causing inconvenience and danger of displacing the galley-lock and the type held in place by it.)

The stop-bars A and B are forms which could be made of wood, with the exception of the spring and its fastening. If made of sheet metal the stop-bars could assume practically the form of A and B, except that they would be a hollow shell, and a bottom or under side would be unnecessary.

In Fig. 2, C shows a form of my invention adapted to sheet metal, in which the side $n-p$ of the galley $m-n-o-p$ is grasped by the forked end of the strap of metal composing the stop-bar, the portion 16 of said end passing down outside the side of the galley, and the other portion 18 passing downward inside of said side. Between the points of descent of these two forked ends and the bend 11-17 the stop-bar as shown is raised above the bottom of the galley sufficiently to permit the use of any form of side-stick (not shown). (Instead of rising above the galley-bottom to permit the side-stick to pass under it, the stop-bar may be constructed to rest, in its middle portion, on the bottom of the galley, in which case the side-stick if used at all would pass above it.) The points 12, 15 and 8 rest in the bottom of the galley. The surface 15-14-7-8 is parallel to the end of the column of type T, and carries the spring $s-s'$ fastened on pivot w . When the stop-bar C is slid along the galley-edge $n-p$ until the spring $s-s'$ is compressed against the type, the pressure of the type against the spring is represented by the arrow z , which results in clamping the galley-side $n-p$ by resulting pressures x and y in 18 and 16. The stop-bar C, as shown, also has additional slits 3 and 4 to adapt it to galleys of narrower width than the one illustrated.

The slits 3 and 4, for engaging the galley-side $n-p$, are formed in a wing of the sheet metal which is bent, at a right angle, along the edge 6-1, the edge 5-2 being in or parallel to the bottom of the galley. Another wing is similarly bent at 6'-1', on the opposite edge of the stop-bar, and bears slits corresponding to 3 and 4. (To avoid complexity in the drawing, those parts which would have to be shown by dotted lines are omitted.) The stop-bar C is further adapted to still narrower galleys by means of the revolution of the spring $s-s'$ upon its pivot w , through 180 degrees.

In Fig. 3, $m-n$, $m'-n'$ and $m''-n''$ show cross-sections of common forms of galleys, the sections shown being transversely of the galleys. 1, 1' and 1'' show suitable forms for the slits in the end-locks to adapt them to said galleys.

Modifications may be made in the details of construction shown and described without departing from the spirit of my invention. For instance, the end-lock could be constructed entirely of wire, with attendant modifications of form; it could be so formed as to lie under, instead of over, the side-stick; likewise the attachment of the spring to enable it to be adjusted for different widths of galleys may be different than shown, and the substitution of any elastic bearing in place of the spring, as shown, might be made, and a stop-bar would result which would still operate upon the same principle as those shown.

Having now described my invention, I claim as new and desire to secure by Letters Patent—

1. A type-lock consisting of a bar to extend transversely of a printer's galley, said bar having two or more slots formed of rigid walls to engage a side of said galley, thereby adapting the bar to galleys of different widths; said bar also having a projecting member to bear against the foot of a column of type, said projecting member being widely spaced along said bar from said slots to give leverage to pressure exerted by the type, thereby to lock said bar to said side by means of said slots; substantially as set forth.

2. A type-lock consisting of a bar to extend transversely of a printer's galley, said bar having a slot formed of rigid walls adapted to engage a side of said galley; said bar also having a projecting member to bear against the foot of a column of type, said projecting member being widely spaced along said bar from said slot to give leverage to pressure exerted by the type, thereby to lock said bar to said side by means of said slot; said bar being furthermore arched in its middle portion to permit the use of locking side-sticks independently thereof; substantially as set forth.

3. A galley-lock comprising a bar to ex-

tend transversely of a printer's galley, one end of said bar having two or more slits for engaging a side of said galley and thereby adapting said bar to galleys of different widths, and the other end having a projecting surface for bearing against the type, said bar being so undercut in its middle portion as to permit the use of locking side-sticks, substantially as set forth.

4. A type-lock comprising a bar to extend transversely of a printer's galley, said bar having a slot to loosely and slidably engage a side of said galley; said bar also having a projecting spring adapted to be compressed against the foot of a column of type; said spring being spaced along said bar from said slot to give leverage to the reaction of the spring against the type, thereby to lock said bar to said side by means of said slot; substantially as set forth.

5. A galley-lock comprising a bar to extend transversely of a printer's galley, one end of said bar having a slit for engaging a side of said galley, and the other end having a projecting resilient surface for compressing against the type, said bearing surface being adjustable lengthwise of said bar to adapt said bar to galleys of different widths, substantially as set forth.

6. A type-lock comprising a bar to extend transversely of a printer's galley, said bar having a slot formed of rigid walls adapted to engage a side of said galley; said bar also having a projecting spring adapted to be compressed against the foot of a column of type, said spring being spaced along said bar from said slot to give leverage to the reaction of the spring against the type, thereby to lock said bar to said side by means of said slot; said bar being furthermore arched in its middle portion to permit the use of locking side-sticks independently thereof; substantially as set forth.

7. A galley-lock comprising a bar to extend transversely of a printer's galley, one end of said bar having two or more slits for engaging a side of said galley and thereby adapting said bar to galleys of different widths, and the other end of said bar having a projecting resilient surface for compressing against the type, said bar being so shaped in its middle portion as to permit the use of locking side-sticks, substantially as set forth.

8. A galley lock comprising a bar to extend transversely of a printer's galley, one end of said bar having two or more slits for engaging a side of said galley and thereby adapting said bar to galleys of different widths, and the other end of said bar having a projecting resilient surface for compressing against the type, said resilient surface being adjustable lengthwise of the bar to further adapt said bar to galleys of different widths, substantially as set forth.

9. A galley-lock comprising a bar to extend transversely of a printer's galley, one end of said bar having two or more slits for engaging a side of said galley and thereby adapting said bar to galleys of different widths, and the other end of said bar having a projecting resilient surface for compressing against the type, said resilient surface being adjustable lengthwise of said bar to further adapt said bar to galleys of different widths, said bar being so shaped in its middle portion as to permit the use of locking side-sticks, substantially as set forth.

10. A galley-lock comprising a bar of sheet metal to extend transversely of a printer's galley, one end of said bar being split into two parts forming a fork to engage a side of said galley, the other end of said bar having a projecting resilient surface for compressing against the type, said resilient surface being adjustable lengthwise of said bar to adapt said bar to galleys of different widths, and said bar being arched in its middle portion to permit the passage of a locking side-stick, substantially as set forth.

11. A galley-lock comprising a bar of sheet-metal to extend transversely of a printer's galley, one end of said bar being split so as to form a fork to engage a side of said galley, the other end of said bar having a projecting spring for compressing against the type, said spring being adjustable lengthwise of said bar, to adapt said bar to galleys of different widths; said bar having wings or sides at an angle with the bottom of said galley, which wings provide one or more slits for engaging a side of said galley thereby further adapting said bar to galleys of different widths, and said bar being arched in its middle portion to permit the use of a locking side-stick, substantially as set forth.

12. A galley-lock comprising a bar of sheet-metal to extend transversely of a printer's galley, one end of said bar being so formed as to loosely grasp or contain a side of said galley and at the same time permit said bar to slide along said side, and the other end of said bar bearing a projecting spring so disposed that it may be compressed against the foot of a column of type contained in said galley, the compression of said spring, by its reaction against said bar, causing said bar to securely grip the said inclosed galley-side, substantially as set forth.

13. A printer's galley provided with a galley-lock comprising a bar of rigid material extending transversely of said galley, one end of said bar being so formed as to loosely grasp or contain a side of said galley and at the same time permit said bar to slide along said side, and the other end of said bar bearing a projecting resilient surface so disposed that it may be compressed against the foot of

a column of type contained in said galley, the compression of said resilient surface, by its reaction against said bar, causing said bar to securely grip the said inclosed galley-side, substantially as set forth.

14. A printer's galley provided with a galley-lock comprising a bar of sheet-metal to extend transversely of said galley, one end of said bar being split so as to form a fork to engage a side of said galley, the other end of said bar having a projecting spring for compressing against the type, said spring being adjustable lengthwise of said bar to adapt said bar to galleys of different widths, said bar having wings or sides at an angle with the bottom of said galley, which wings provide one or more slits for engaging a side of said galley, thereby further adapting said bar to galleys of different widths, and said

bar being arched in its middle portion to permit the use of a locking side-stick, substantially as set forth.

15. A type-lock comprising a bar to extend transversely of a printer's galley, said bar having a slot formed of rigid walls to engage that side of said galley which is opposite the type-side, said bar also having a projecting spring adapted to be compressed against the foot of a column of type, said spring being spaced along said bar from said slot to give leverage to its reaction against the type thereby to lock said bar to said side by means of said slot; substantially as set forth.

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