

UNITED STATES PATENT OFFICE.

JOHN PHELAN, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR OF TWO-THIRDS
TO WILLIAM TRIMBLE AND JACOB H. JONES, OF SAME PLACE.

GALLEY-LOCK.

SPECIFICATION forming part of Letters Patent No. 479,840, dated August 2, 1892.

Application filed November 10, 1891. Serial No. 411,472. (No model.)

To all whom it may concern:

Be it known that I, JOHN PHELAN, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Galley-Locks; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention has particular reference to that class of galley-locks in which pins are movable in parallel slots oblique to the face of a presser-plate or side-stick; and my object is to so construct the device that it will give a more uniform pressure throughout the column of type.

With a view to the achievement of this purpose my invention comprehends the peculiar features and combinations of parts more fully described hereinafter, and pointed out in the claims.

In the accompanying drawings, Figure 1 represents a top view or plan of my complete invention, showing the galley in open adjustment, as before locking up the type; Fig. 2, a similar view of the galley closed, as when the type are locked; Fig. 3, a transverse section through X X, Fig. 1; Fig. 4, a similar view through Y Y, Fig. 2; Fig. 5, a detail of the guide-lip on the end of the side-stick.

The galley consists of the usual flat base-plate *a*, along the right-hand side and upper edges of which are riveted angle-plates *b* and *c*, having their vertical sides joined where the two meet by a rivet *d*. On the left-hand side of the galley there is a locking-bar *e* nearly as long as the galley, and this bar is provided with a series of, preferably three, longitudinal slots *f*, through each of which passes a guide-pin *g*, fixed to the base of the galley. The end of the bar nearest the operator has upon it an upward projection *h*, which serves as a handle in moving the bar back and forth to open and close a side-stick *i*, to be presently explained. This side-stick consists of a rectangular integral bar of metal, the vertical

wall *j* of which is perfectly straight and parallel with the vertical face of the opposite bar *b*. Located on the left side of the side-stick are a series of spring-loops *k*, all of which are alike in size, slant, and resistance. Each of these consist of a flat band of spring-steel, with its upper end bent around to form the rounded end of the loop, from whence the band extends to form an arm *k'*, attached to the vertical wall *j* by rivets *k''*. The lower end of the loop bears against the vertical side. The longitudinal plane of each loop is oblique to that of the face of the side-stick. A series of fixed studs *l* on the locking-bar *e* are located and move within these loops, and a lip *m* on the outer end of the side-stick takes over the edge of the end angle-bar *c* to prevent the side-stick from being bent downward with the movement of the actuating-bar.

In using my device the side-stick is locked against the side of the type by simply grasping the handle *h* and pushing the bar *e* upward. This movement slides the studs *l* within the loops and forces the side-stick laterally against the type. In the old devices, in which a series of studs worked in slots oblique to their movement, the side-stick will sometimes get out of parallel on account of wear and tear, &c., and consequently fail to apply equal pressure to all parts of the type.

Now the advantage of my present arrangement is that the studs have yielding and uniform pressure against the sides of the inclined slots, and therefore any slight disarrangement of parts, as originally adjusted, will not affect its successful operation, for the side-stick will be pressed with equal force at all points throughout its length and the type held uniformly in place. Any jarring which might tend to loosen the column will also be taken up at once by the springs. A further advantage of the springs is that they dispense with a great deal of careful fitting and "truing up," for when the parts are rigid very accurate measurements and special machinery are required; but with the springs the parts yield and accommodate themselves to the side-stick and hence the type.

In unlocking the usual reverse movement of the locking-bar is all that is required.

Having thus described my invention, what I

claim as new, and desire to secure by Letters Patent, is—

1. In a galley-lock, a galley having the usual side and end walls, in combination with a
5 side-stick provided with slots having yielding walls extending obliquely to the plane of the side-stick and a locking-bar carrying studs movable in the slots, as set forth.

2. In a galley-lock, the combination of a
10 galley having the usual side and end walls, a laterally-movable quoin provided with a guide-lip to prevent longitudinal movement,

a series of oblique spring-bearings, and a locking-bar carrying fixed pins movable in bearings, all arranged and adapted to operate in
15 the manner and for the purposes substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN PHELAN.

Witnesses:

JOHN H. ARMSTRONG,
RANKIN NEBINGER.