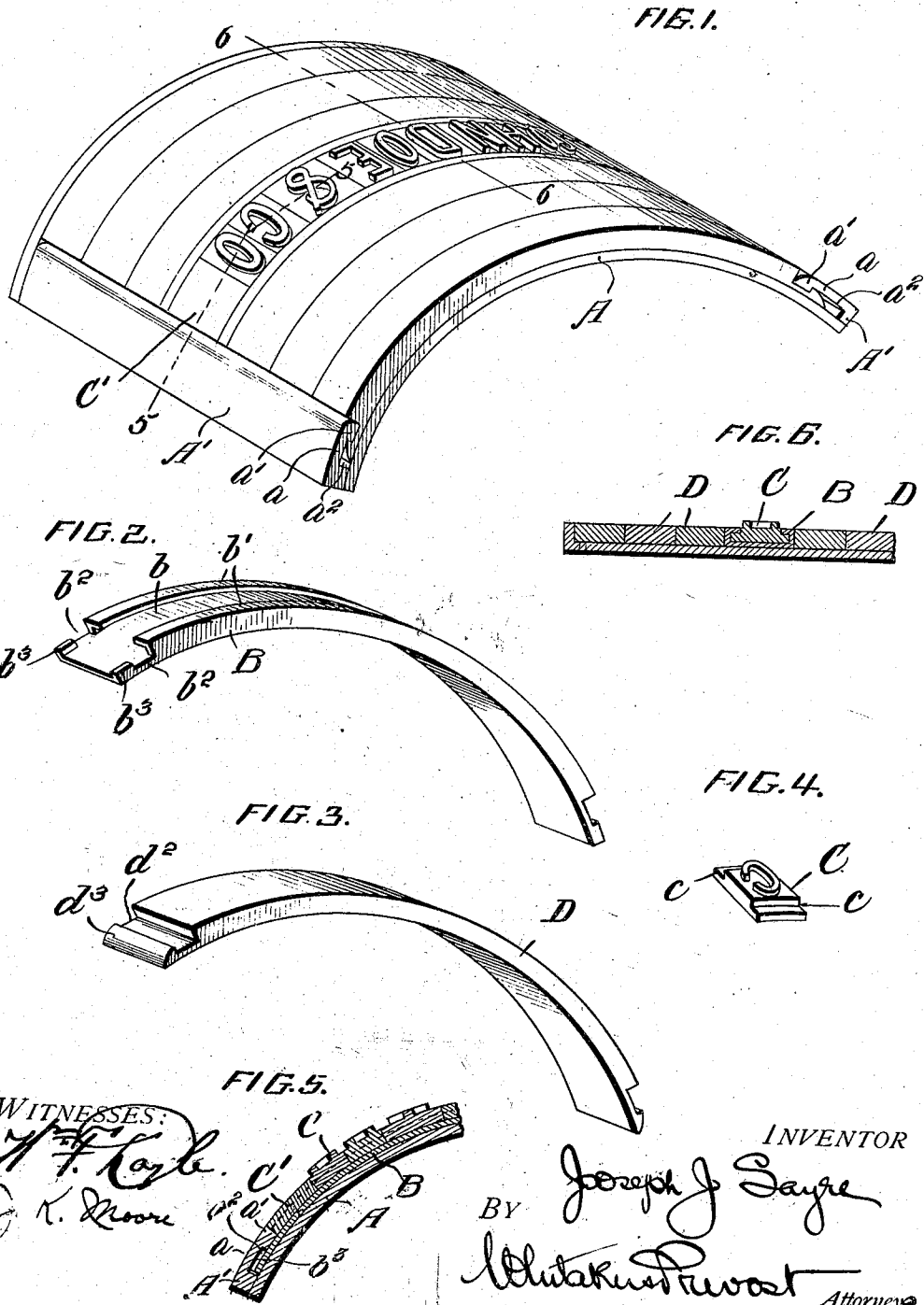


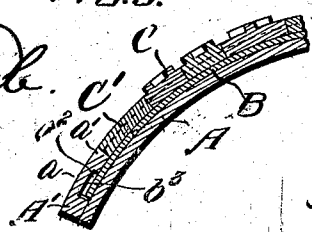
899,624.

Patented Sept. 29, 1908



WITNESSES:

*H. F. Kable*  
*J. K. Moore*



INVENTOR

BY *Joseph J Sayre*  
*Whitaker & Towner* Attorneys

# UNITED STATES PATENT OFFICE.

JOSEPH JOHNSTON SAYRE, OF CINCINNATI, OHIO.

## PRINTING DEVICE.

No. 899,624.

Specification of Letters Patent.

Patented Sept. 29, 1908.

Application filed April 22, 1908. Serial No. 423,603.

*To all whom it may concern:*

Be it known that I, JOSEPH J. SAYRE, citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Printing Devices; and I do hereby 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.

My invention consists in the novel features hereinafter described reference being had to the accompanying drawing which illustrates one form in which I have contemplated embodying my invention and said invention is fully disclosed in the following description and claims.

The object of my invention is to provide improved means for holding the movable type for printing boards, boxes, paste board, etc., on a cylinder press, in which the letters are properly spaced and rigidly held in position without the use of screws or other removable securing means.

In the drawings, Figure 1 represents a perspective view of my improved holder complete, and ready for insertion in a cylinder press. Fig. 2 is a perspective view of one of the type holding bars. Fig. 3 is a similar view of a spacing bar, and Fig. 4 is a perspective view of one of the type, or printing blocks. Fig. 5 is a partial sectional view on line 5—5 Fig. 1. Fig. 6 is a section on line 6—6 of Fig. 1.

In carrying out my invention I employ a curved holder or chase, which consists of a backing plate A preferably of sheet steel curved so as to fit the cylinder of the press in which it is to be used, and provided at its opposite ends with the locking or retaining bars A', A' each of which is preferably made of brass, and provided with a portion *a* overhanging the convex surface of the plate A, and provided on its under side with a downwardly extending longitudinal rib *a'* at or adjacent to its inner edge, and with a longitudinal groove *a''* within said edge as shown clearly in the drawings. The retaining bars A' may be secured to the back plate A by brazing, riveting or in any other desired manner.

B represents a letter holder, which consists of a bar, preferably of brass, curved to fit upon the convex face of the plate A and grooved on its convex side longitudinally as

shown at *b*, and provided with inwardly projecting edges *b'*. At each end the edges of the letter holder B are provided with notches *b'' b''* to fit the bead *a'* of the chase, and with lugs *b''' b'''* which fit the groove *a''* of the chase.

C represents one of the movable type or letter blocks, which is chamfered at top and bottom as shown to provide projections or flanges *c c*. These letter blocks or type can be readily inserted in the type holder B, from either end, and set according to the matter to be printed in a particular line, suitable spacing blocks of various widths being provided as indicated at C', Fig. 1, which correspond to the letter blocks C except for the impression surface, and these spacing blocks are used to space in the usual manner and to justify the line at each end with the inner edges of the notches *b'' b''*. The type holder is then inserted sidewise into the chase with the beads *a'* fitting in the recesses *b''* and projections *b'''* fitting the groove *a''*, which parts of the chase and letter holder interlock, thus holding the letter holder in the chase, and also securing the type and spacing blocks C, C' from longitudinal movement in the type holder as will be readily seen. A number of type-holders of varying widths and type of various heights and of any desired style may be provided, and a number of lines can be set up in this manner in the chase.

In order to space the lines from each other, when necessary and to space the lines properly in respect to the chase I provide a number of space bars D, one of which is shown in Fig. 3. These bars are preferably made of sheet steel and curved to fit upon the convex face of the chase, and are further provided at each end with a transverse groove or notch *d''* and projection or rib *d'''* to interlock with the bead *a'* and groove *a''* of the chase. These spacing bars are provided in varying widths so that by their use the line or type holders can be properly spaced in the chase.

In order to facilitate the handling of the chase after the type holders and spacing bars are inserted, I prefer to provide the chase with a retaining strip A<sup>2</sup> or bead adjacent to one of its curved edges, to prevent the lateral movement of the bars but it is not absolutely essential as the letter holders and space bars will be held from movement by the flanges of the cylinder of the press, when the chase is placed in operative positions.

The chase may be placed upon and secured to the cylinder in the usual manner,

and it will be noted that the type are held in proper position for printing without the use of any screws or other detachable devices, the loosening of which, when they are used, is likely to cause annoyance and injury to the type or press.

It is obvious that the particular form of the interlocking portions of the chase and bars, may be varied without departing from the spirit of my invention, of which the leading feature is the locking of the type in the type holders by placing the type holders in engagement with the chase. It is obvious that the inner edges of the retaining bars A', A' of the chase confine the type blocks against lateral movement, and the engagement between the flanges c c of the type blocks and the dovetailed grooves formed by the flanges b b of the letter holder, prevent the letter blocks from becoming disengaged therefrom.

While I have described and illustrated my invention as applied to a curved chase for a cylinder press, it is obvious that I may make the chase, type holding bars and spacing bars flat and use the same in a platen or other press having a flat bed, if found desirable.

What I claim and desire to secure by Letters Patent is:—

1. The combination with the chase provided with oppositely disposed parallel retaining flanges overhanging the face of the chase, of a type holding bar provided with a longitudinal type receiving channel open at at least one of its ends, having lateral overhanging edges, and end portions constructed to engage the retaining flanges to simultaneously secure the type holding bar in the chase and close the open portion of said channel to secure the type in the type holding bar, substantially as described.

2. The combination with the chase provided with oppositely disposed parallel retaining flanges overhanging the face of the chase, of a type holding bar provided with a longitudinal type receiving channel open at both ends having lateral overhanging edges, and having its end portions beyond said lateral overhanging edges constructed to engage the underside of said overhanging portions of the retaining flanges, spacing bars having end portions constructed to engage the overhanging portions of the retaining flanges, and type blocks having portions constructed to engage the channel of the type bar, the retaining flanges closing the open ends of said type channel of the type holding bar when the parts are assembled, substantially as described.

3. The combination with a chase having parallel retaining flanges, a type holding bar having a longitudinal type holding channel open at at least one of its ends, and end portions beyond the channeled portions constructed to interlock with the said retaining

flanges, said retaining flanges having portions closing the open end or ends of the type holding channel, when the type holding bar is placed in engagement therewith, substantially as described.

4. The combination with a chase having parallel retaining flanges, a type holding bar having a longitudinal type holding channel open at at least one end, and end portions beyond said channel constructed to interlock with the said retaining flanges, type blocks constructed to interlock with lateral portions of said type holding channel, said retaining flanges having portions closing the open end or ends of said channel, when the type holding bar is placed in engagement therewith, and a spacing bar having its ends constructed to interlock with said retaining flanges, substantially as described.

5. The combination with a chase comprising a curved plate provided with opposite retaining flanges extending over the convex surface of said plate, of a curved type holding bar, having a longitudinal type holding channel open at its ends, and provided with overhanging lateral portions terminating at a distance from the ends of said bar, and having its end portions beyond said overhanging lateral portions constructed to pass under the said retaining flanges, said retaining flanges closing the said type holding channel at each end when the type holding bar is placed in engagement therewith, curved spacing bars having their end portions constructed to engage said retaining flanges, and type blocks having oppositely disposed projecting portions to engage the channel of said type holding bar, substantially as described.

6. The combination with a chase comprising a plate provided with opposite retaining bars having portions extending over the face of the plate and provided on the under side thereof with a longitudinal bead at its inner edge and a longitudinal recess within said bead, of a type holding bar having a longitudinal type holding channel open at its ends and provided with overhanging lateral portions terminating at a distance from the ends of said bar, and having its end portions provided beyond said overhanging lateral portions with notches to fit the said bead, and with projections to fit the groove of said retaining bars, said retaining bars closing the type holding channel at each end when the type holding bar is placed in engagement therewith, substantially as described.

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

JOSEPH JOHNSTON SAYRE.

Witnesses:

DOROTHY BERNARD,  
CHARLES H. STEPHENS, Jr