(No Model.)

E. A. HENKLE & J. C. FOWLER.

CURVED LINOTYPE BAR.

No. 461,338 Patented Oct. 13, 1891.

Fig. 1.

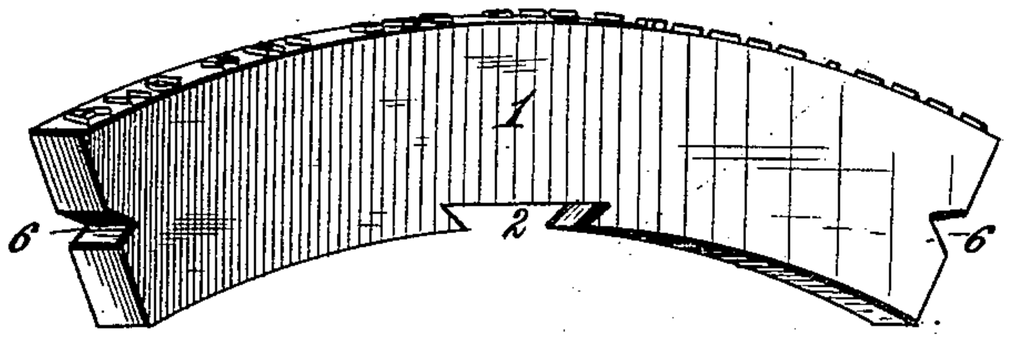


Fig. 2.

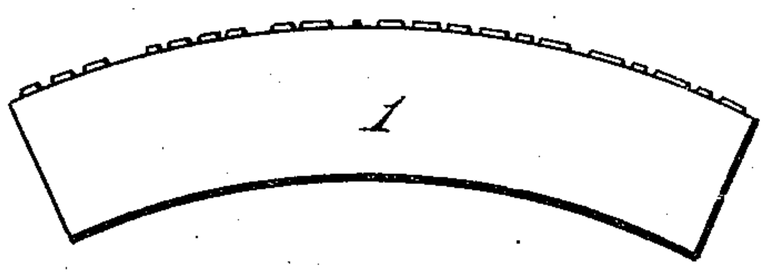
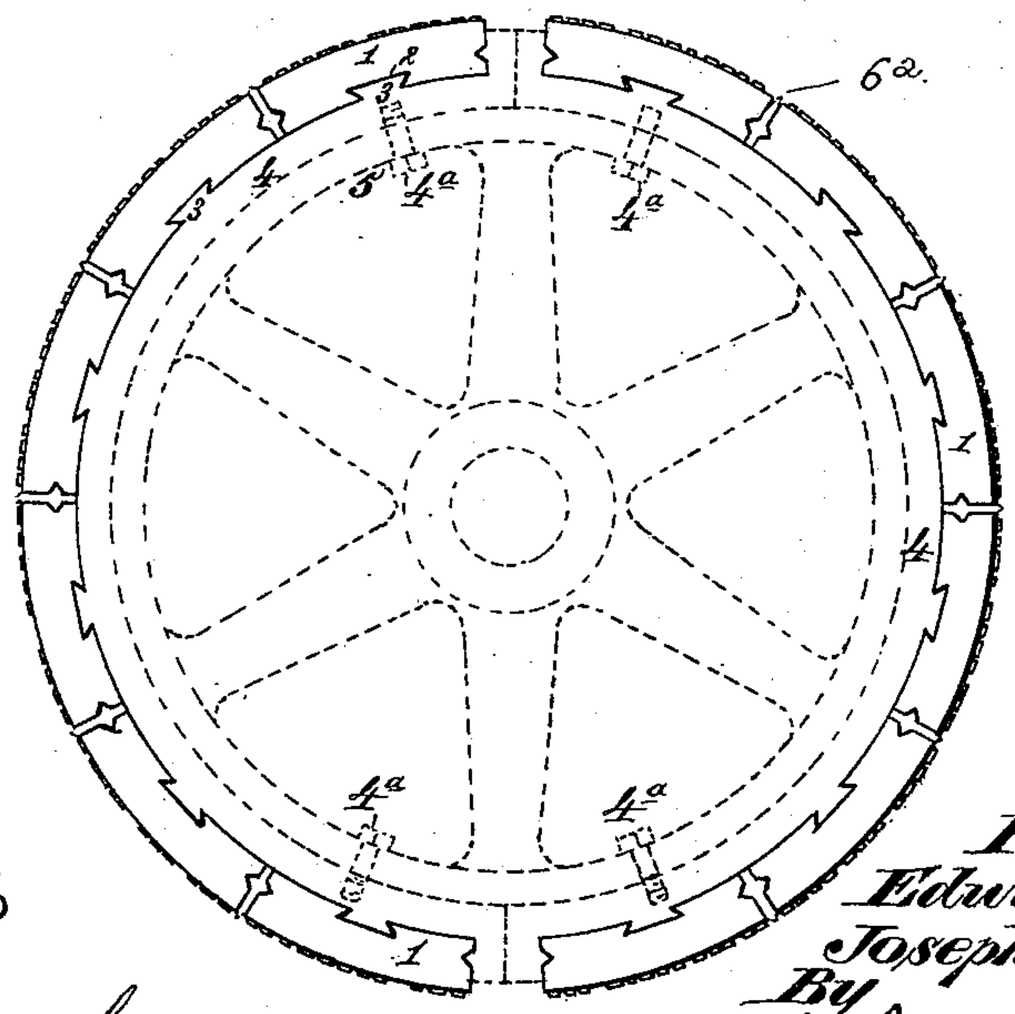


Fig. 3.



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UNITED STATES PATENT OFFICE.

EDWARD A. HENKLE AND JOSEPH C. FOWLER, OF WASHINGTON, DISTRICT OF COLUMBIA.

CURVED LINOTYPE-BAR.

SPECIFICATION forming part of Letters Patent No. 461,338, dated October 13, 1891.

Application filed April 15, 1890. Serial No. 348,019. (No model.)

To all whom it may concern:

Be it known that we, EDWARD A. HENKLE and JOSEPH C. FOWLER, citizens of the United States, residing at Washington, in the District of Columbia, have invented new and useful Improvements in Curved Linotype-Bars, of which the following is a specification.

Our invention relates to certain improvements in apparatus for continuous web-printing. It is our purpose to provide a curved linotype-bar having type-faces upon its convex face, reading in the direction of the length of said bar and comprising a series of words or other characters, said bar being locked up in a suitably-formed chase mounted upon a type-cylinder; the linotype-bars being arranged at substantially right angles with the axis of the type-cylinder.

Our invention consists to these ends in the several novel features of construction and new combinations of parts, hereinafter fully set forth, and then definitely pointed out in the claims which follow this specification.

Referring to the accompanying drawings, Figure 1 is a perspective view of a linotype-bar constructed in accordance with our invention, said figure showing interchangeable constructions by which the bar may be connected with the chase. Fig. 2 is a side elevation of a curved linotype-bar. Fig. 3 is a view showing the bars mounted in series upon a chase curved to correspond with the surface of a type-cylinder.

In the said drawings, the reference-numeral 1 denotes a linotype-bar cast in any suitable manner, the vertical faces thereof being parallel and the upper and lower edges thereof being curved concentrically in arcs of any desired radius. Upon the outer or convex face of this bar the type-faces are formed from a matrix in any suitable manner, the letters reading in the direction of the length of the bar. The bars are arranged upon a type-cylinder or upon a curved chase locked upon such a cylinder, their length being at right angles, or substantially so, to the axis of such cylinder.

There are several different ways in which the type-bars may be locked up in series upon a type-cylinder or upon a curved chase concentric with and carried by said cylinder, whereby all tendency to displacement by centrifugal force is avoided. For this purpose and to enable the form to be set upon the chase and then locked upon the type-cylinder we form one or more dovetailed notches 2 in the concave edges of the linotype-bars, which engage with one or more tenons 3, of corresponding form, upon a curved chase 4, which is mounted upon the periphery of a type-cylinder 5 and connected in any suitable manner therewith. A convenient and simple way of securing the curved chase 4 upon the cylinder is by means of bolts 4^a, inserted from the interior of the said cylinder and tapped into the curved chase, as shown in Fig. 3. When arranged in this manner upon the type-cylinder, the linotype-bars are simply slipped in succession upon the dovetailed tenons of the chase, the latter being afterward locked upon the cylinder in any suitable manner. We also form notches 6 in the ends of the type-bar, and these notches may be used either to lock up the rules which divide the columns or they may be employed to connect the type-bars with the cylinder or chase.

The curved chase 4 may be in the form of a half-cylinder, as shown, having upon each edge a flange turned outwardly, as shown in Fig. 3, and adapted to lie close to a similar flange upon the other semi-cylindrical chase. These flanges will correspond in position and width, when placed together, with the blank spaces or margins upon the printed sheet. The rules 6^a (shown in Fig. 3 as arranged between the ends of the adjacent series of type-bars) consist of metallic plates having upon their opposite flat faces angular ribs, which enter the notches 6 in the ends of the type-bars to lock the rules in place, as shown.

What we claim is—

1. The combination, with a press-cylinder, of a curved chase attached thereto and having a series of tenons projecting longitudinally from its outer face, and curved type-bars having transverse dovetailed notches formed in their concave edges to receive the tenons on the chase, substantially as described.

2. The combination, with a press-cylinder, of curved chases attached to the sides thereof

and fitting to each other at their edges, the outer surface of each chase being provided with a series of dovetailed tenons parallel with the axis of the cylinder, curved type-bars having a single line of type upon their convex edges and provided with dovetailed notches in their concave edges to fit the tenons on the chases, and a series of rules having ribs upon their opposite faces, which enter notches in the ends of the type-bars, substantially as described.

In testimony whereof we have affixed our signatures in presence of two witnesses.

EDWARD A. HENKLE.
JOS. C. FOWLER.

Witnesses to the signature of E. A. Henkle:
J. R. MASSEY,
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