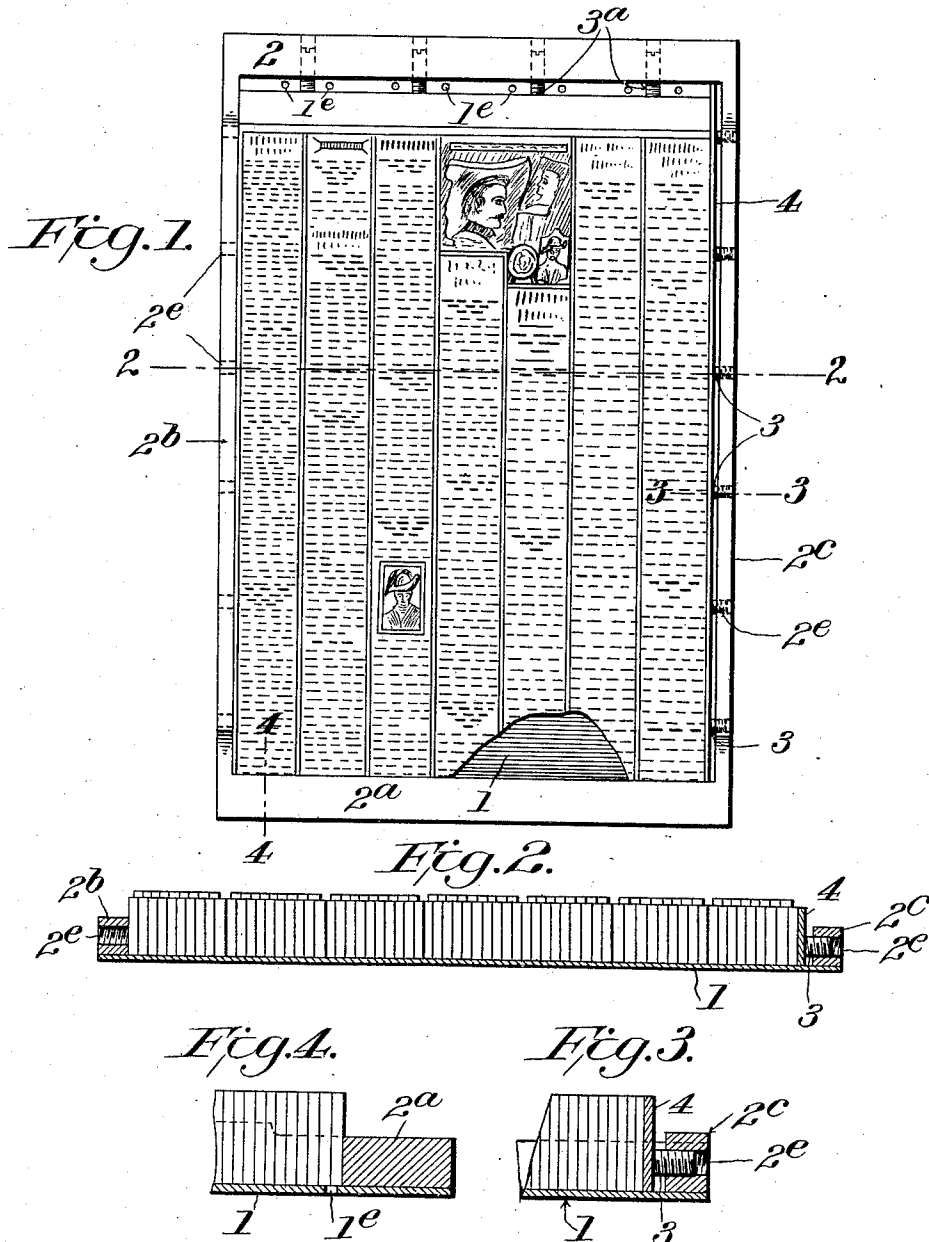


H. F. BECHMAN.
CHASE FOR HOLDING COMPOSED FORMS OF TYPE.
APPLICATION FILED OCT. 24, 1910.

1,016,605.

Patented Feb. 6, 1912.



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UNITED STATES PATENT OFFICE.

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CHASE FOR HOLDING COMPOSED FORMS OF TYPE.

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Specification of Letters Patent.

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Application filed October 24, 1910. Serial No. 588,810.

To all whom it may concern:

Be it known that I, HENRY F. BECHMAN, of Battle Creek, in the county of Calhoun and State of Michigan, have invented certain new and useful Improvements in Chases for Holding Composed Forms of Type; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form part of this specification.

This invention is an improvement in chases for holding forms of type, during the printing operations, and its principal object is to provide a chase having very narrow side members, as compared with the ordinary chases heretofore made, so that the margins between impressions from adjacent forms can be materially lessened, thereby allowing the printing press beds to be narrowed, and reducing the width of the web of paper necessary for permitting a given number of page impressions to be simultaneously made thereon side by side.

Another object is to provide the chase with novel means whereby the type forms can be securely locked therein, said means comprising concealed screws tapped through the side members of the chase, and by which the type can be positively locked in the chase with any degree of force required.

Additional objects are to provide a chase wherein the type can be kept in perfect face alinement, can be readily transported and moved from place to place without liability of type dropping out of position, and "pieing" of the type will be practically obviated; and which is so formed that the narrowing or thinning of the side members thereof does not materially affect the rigidity of the chase.

I will explain the invention with reference to the accompanying drawings which illustrate a chase embodying the invention. In said drawings: Figure 1 represents a plan view of a chase with a composed form of type secured therein. Fig. 2 is a transverse section on line 2—2, Fig. 1. Fig. 3 is an enlarged detail section on line 3—3, Fig. 1. Fig. 4 is an enlarged detail section on line 4—4, Fig. 1.

The chase, as shown, comprises a bottom plate 1, preferably made of brass, plane surfaced on top and bottom, and of a size conforming to the exterior diameter of the

chase. Upon this bottom plate 1, is a frame, which may be of steel, having end members 2, and 2^a, and side members 2^b and 2^c. The end members 2, 2^a may be of normal size, or such as are customarily employed in chases, but the side members 2^b, 2^c are much narrower in width than the end members, being shown as approximately about one-third the width of the end members. The end members 2, 2^a and side members 2^b, 2^c of the frame are rigidly secured to the bottom plate 1, by brazing, riveting, or in other suitable manner, so that the said frame stiffens and protects the edges of the bottom plate 1, and the bottom plate forms a stiffening bond or tie between the members of the frame, and particularly between the side members thereof, and effectually prevents the latter springing under the pressure of the locking devices when the type form is fastened in the chase.

I perforate the bottom plate 1, preferably adjacent one end of the frame, as shown at 1^e, to permit the lye used in washing the type while locked in the chase to escape therefrom.

The side members of the chase may be provided with a series of transversely disposed threaded holes 2^e in each of which is a concealed screw 3 which can be operated by means of narrow bladed screw-driver inserted in the holes. After the type form is placed in the chase a locking bar or side stick 4 is inserted between the form and one of the side members 2^c at the adjacent side of the type column as indicated in Figs. 1 and 2. Then the adjacent screws 3 are turned, by a screw-driver or other suitable tool, so as to engage the outer face of the side bar 4 and press the latter forcibly against the type so as to effectually prevent lateral displacement of the type in the chase. Both side members of the chase are preferably made with a series of these screw threaded holes, so that the type can be locked right and left if desired, although the chase would be efficient if only one side member was provided with a set of locking screws. If desired a similar series of locking screws may be placed in the end members of the chase as indicated at 3^a Fig. 1, so that the type form can also be locked longitudinally in the chase, thereby doing away with the need for quoins.

One particular advantage of the invention

is that owing to the narrowing of the sides of the chase it is possible to get the desired narrow margin between adjacent forms, while with the present chases, in which the side members are as wide as the ends, it is impossible to get such narrow margins. With my chases I have been able to reduce the width of paper required for an eight page newspaper from seventy to sixty-six inches. The chases are prevented from buckling when locked from the side, owing to the reinforcing bottom plate. The type does not have to be jammed so tightly in order to lock them in the chase, as they cannot drop out, nor be knocked or forced out if an obstacle should be on the bed when the chase is laid down; and the side-locking screws can be readily tightened. The chase is particularly adapted to use on presses where several forms lie side by side on a bed, as in the "Duplex" flat bed web printing presses. My invention also obviates the very common trouble of column rules working up, because the chase being rigidly bonded by the bottom plate will not buckle from tight locking pressure upon its ends and sides; and my chase is much more durable because there is no need of excessively tight locking of forms and springing and twisting of the chase due to such strains is obviated.

What I claim is:

1. A chase consisting of a rectangular frame having side members narrower than the end members and provided with transverse screw-threaded holes, a plane-surfaced metal plate underlying the said frame and rigidly connected to the side and end members thereof to prevent lateral distortion thereof, and concealed screws engaging the threaded holes in the side and end members and adapted to lock the type placed in the chase, substantially as described.

2. A chase for newspaper printing presses consisting of a rectangular frame having end and side bars, the side bars being approximately half as wide as the margin

spaces between adjacent impressions on the paper, said bars being provided with transverse threaded holes; a plane-surfaced metal plate underlying said frame and rigidly connected thereto so as to brace the bars against lateral distortion thereof; and screws concealed in the threaded openings of the said bars, and adapted to be projected inwardly in the chase to lock the type therein, substantially as described.

3. A chase consisting of a rectangular metal frame having side members narrower than the end members and provided with transverse screw-threaded holes in said members; a plane-surfaced metal plate underlying the said frame and rigidly connected to the side and end members, and bonding the latter so as to prevent lateral distortion thereof, and concealed screws engaging the threaded holes in the side and end members and adapted to engage the locking bars for the type in the chase, substantially as described.

4. The herein described chase for newspaper printing presses, consisting of a rectangular frame having end and side bars, the side bars being narrower than the end bars and approximately half as wide as the margins between adjacent impressions on the paper, said bars being provided with transverse threaded holes; a plane-surfaced metal bottom plate underlying said frame and rigidly connected thereto so as to brace the bars against lateral distortion; and concealed bolts in the threaded openings of the said bars adapted to be projected inwardly in the chase and engage the side-lock bars of the type therein, substantially as described.

In testimony that I claim the foregoing as my own, I affix my signature in presence of two witnesses.

HENRY F. BECHMAN.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."