

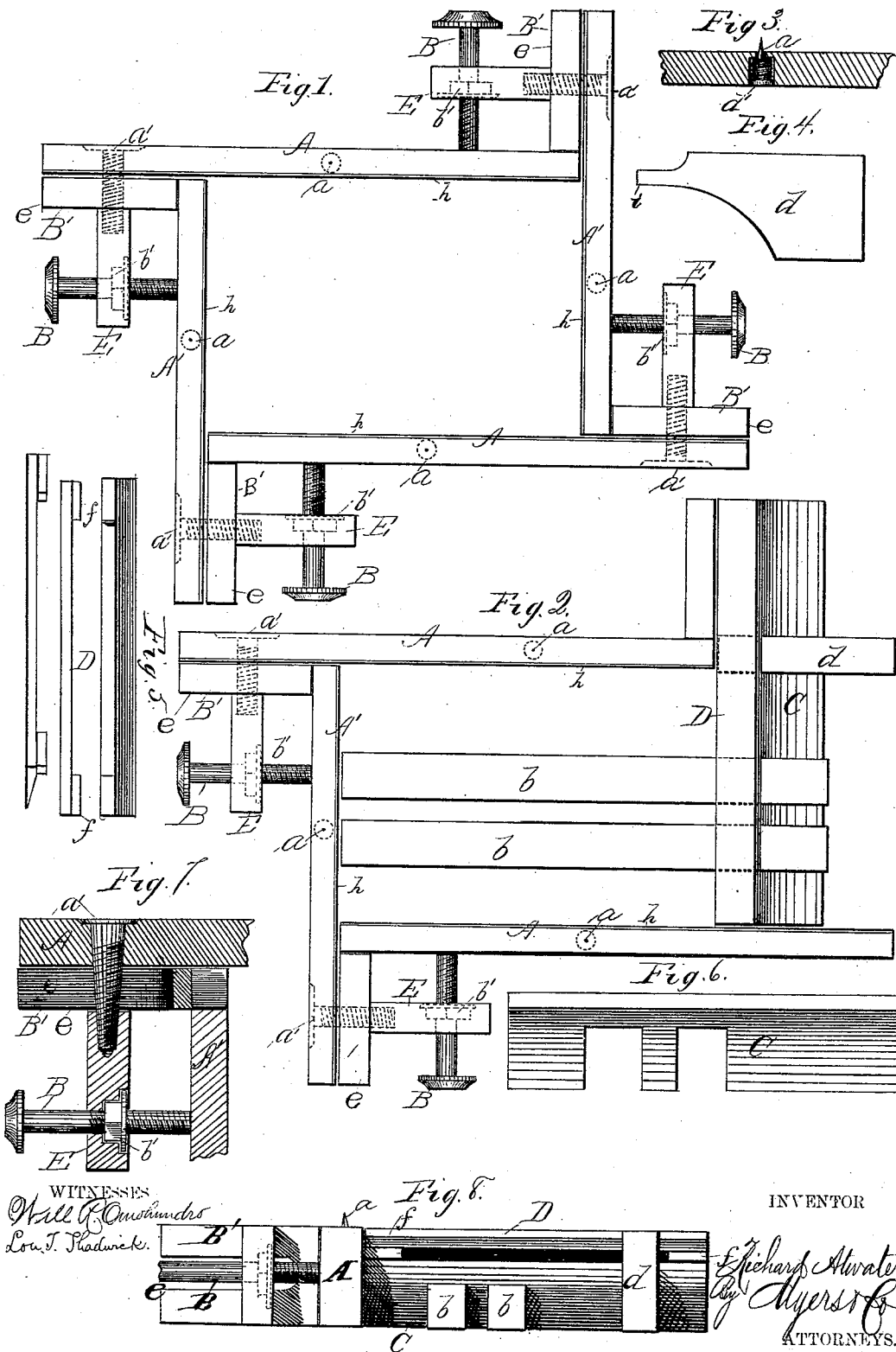
(Model.)

R. ATWATER.

COMBINED PRINTER'S CHASE AND STEREOTYPE FRAME.

No. 244,024.

Patented July 12, 1881.



UNITED STATES PATENT OFFICE.

RICHARD ATWATER, OF WEST MERIDEN, CONNECTICUT.

COMBINED PRINTER'S CHASE AND STEREOTYPE-FRAME.

SPECIFICATION forming part of Letters Patent No. 244,024, dated July 12, 1881.

Application filed July 17, 1880. (Model.)

To all whom it may concern:

Be it known that I, RICHARD ATWATER, a citizen of the United States, residing at West Meriden, in the county of New Haven and State

of Connecticut, have invented certain new and useful Improvements in Combined Printer's Chase and Stereotype-Frame; 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to an improvement in printers' chases and stereotyping-frames; and it consists in the beveled brace-bars A A and A' A', operated by the screw-bolts B B, for locking up the form and holding it in position; in the pins a a, for holding the matrix in position, the slotted bar C, for retaining the core-bars b b in position, and acting as a gage in the casting of the plate, the beveled transverse bar D, and beveled bar d; and in the combination and arrangement of the parts, as hereinafter more specifically set forth.

In the drawings, Figure 1 is a plan view of my printer's chase. Fig. 2 is a similar view of my device arranged as a stereotyping-frame. Fig. 3 is a detached sectional view of a portion of bar A, showing arrangement of pin a, spiral spring, and plug d'. Fig. 4 is a side elevation of beveled bar d. Fig. 5 is a detached view of bar D. Fig. 6 is a plan view of the transversely-slotted bar C. Fig. 7 is a horizontal sectional view of a corner of the printer's chase, showing slot e and relative positions of screws a' and B. Fig. 8 is an end view of the frame as seen in Fig. 2, showing position of pieces C, D, and d when the chase is employed as a stereotyping-frame.

A A represent longitudinal beveled brace-bars, which, in connection with transverse beveled brace-bars A' A', form the frame of my printer's chase. These longitudinal and lateral brace-bars, at the point where in conjunction at either end, are provided with the slotted bars B' B', which project at right angles therefrom and form shoulders against the abutting brace-bars. The longitudinal and transverse brace-bars A A and A' A' are made with a

bevel or incline, h, on the inside edge, sloping toward the form or cast, matching the elevations made in the matrix. At either end, alternately, of the longitudinal and lateral bars are located the connecting-screws a' a', which project horizontally therein, through the slots e e in bars B', and into the bearing-bars E E, thus forming the bearing of each connecting-bar.

The bearing-bars E E are designed for reception of the screw-bolts B passing through them, and the ends thereof abutting against the longitudinal and transverse bars A A and A' A'. These bolts, when operated by rotation or screwing, move the transverse and longitudinal bars, and the type may thus be held securely in position.

The pins a a are designed to hold the matrix in position for casting. These pins are provided with heads slightly larger than the orifices through which their points project, and recesses are formed in said bars for spiral springs, which actuate the pins. These springs are compressed into said recesses, and the plugs d' d' are then inserted to retain them in position when pressed against by the pin-heads in the process of stereotyping, when the pins are forced down in the recesses out of the way by the covering-plate.

When the matrix is formed by the impressions of the types upon the paste-sheet the types and one of the lateral bars are removed, and the device is arranged as shown in Fig. 2, wherein is shown the removable core-bars b b, the purpose of which is to help fill the casting-frame, and to that extent limit the quantity of metal needed to make the stereotype. The frame is placed upon the bed of the casting-box, and its parts are thus held in position.

The transverse bar C, when in use, acts as a gage for limiting the size of the cast, making unnecessary the trimming of the side where locked up.

The beveled bar D is provided with the lugs f f, attached thereto by any ordinary mechanical expedient, for elevating it above the upper side of the slotted bar C, whereon it is placed, thus forming a mouth, in connection with the two beveled surfaces of said two bars, into which the metal is poured in casting.

The bar d is designed as a brace to assist in

sustaining the bars C and D in position, the end *i* thereof being inserted between them, and the beveled surfaces corresponding to those upon the said bars.

5 By removing one of the bars A' and inserting the core-bars *b b* into the slots of the bar C, and placing the bars *d* and D in position, the chase for locking up a form is thus changed into a casting-frame.

10 In locking up a form all that is necessary to do is to put the type into the chase, slightly loosen the binding-screws *a' a'*, turn up the locking-screws B till the bars A A' are brought against the type or page, and then bind with
15 the binding-screws.

For casting or stereotyping, proceed as follows: The chase is laid on the bed of the casting-box, one of the bars A' removed, the mouth-piece or bars C D put on, and the cores laid on the
20 bed, as shown in Figs. 2 and 8. The matrix, contrary to usual custom, is placed on top instead of under the bars or frame. To insure ease and certainty of register the spring-points are used. They stand above the frame and
25 puncture the matrix as the latter is pressed down thereon. When the lid of the casting-box is shut down they sink out of the way of harm.

30 The combined printer's chase and stereotyping-frame can be constructed at little cost, saves time and labor, and in all respects fulfills its intended purpose.

What I claim is—

1. The combination of the longitudinal beveled bars A A and lateral beveled bars A' A', 35 having connecting-screws *a' a'*, slotted bars B' B', and bearing-bars E E, having screw-bolts B B, substantially as shown, and for the purpose described.

2. The bearing-bars E E, attached to the longitudinal and lateral bars A A and A' A' by 40 connecting-screws *a' a'*, and slotted bars B' B', for reception of screw-bolts B B, for closing and opening the chase, substantially as shown and described.

3. The combination, with the bars A A', having the arms B', said arms having bars E, provided with screws B, and screws *a'*, of the removable core-bars *b*, slotted transverse bar C, beveled bar D, having projections *f*, and 45 beveled bar *d*, substantially as and for the purpose set forth.

4. In a combined printer's chase and stereotyping-frame, the compressible points *aa*, seated in the type-frame bars A and A', substantially 55 as shown, and for the purpose set forth.

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

RICHARD ATWATER.

Witnesses:

WM. H. GILES,
HENRY B. TODD.