No. 667,946. Patented Feb. 12, 1901.

C. E. MILLER.

PRINTER'S CHASE.

(Application filed Mar. 29, 1900.)

(No Model.)

Fig. 1.

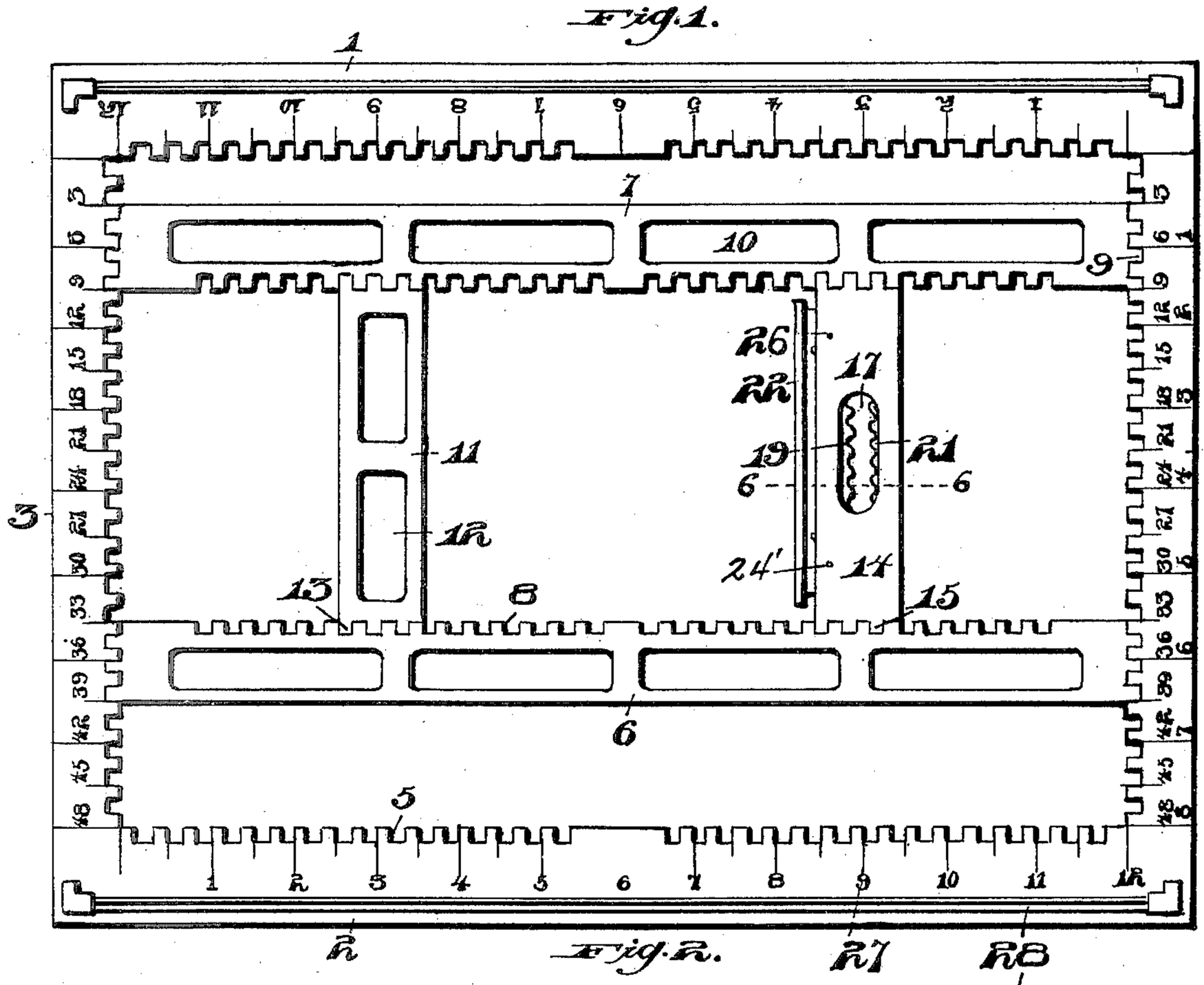


Fig. 2.

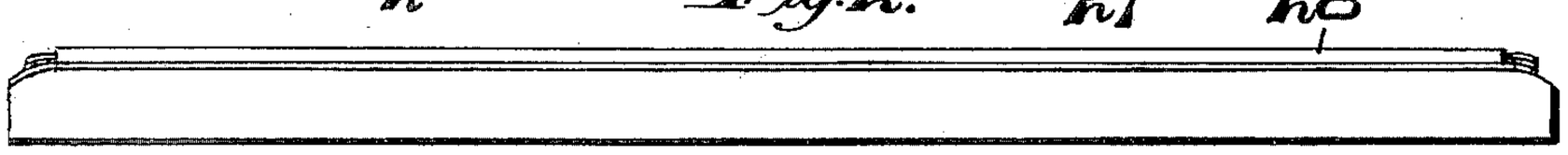


Fig. 3.

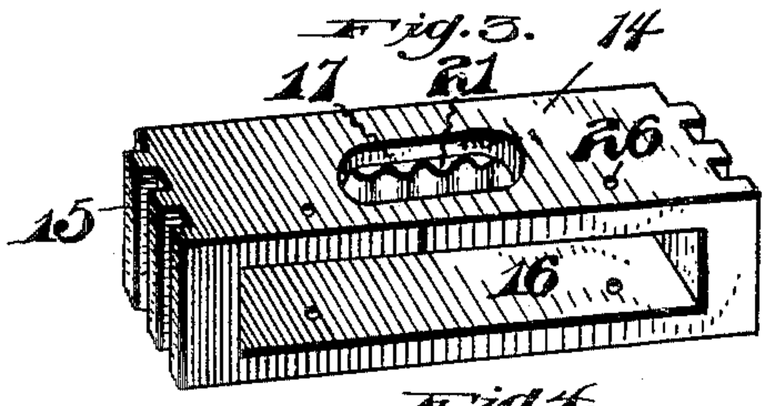


Fig. 4.

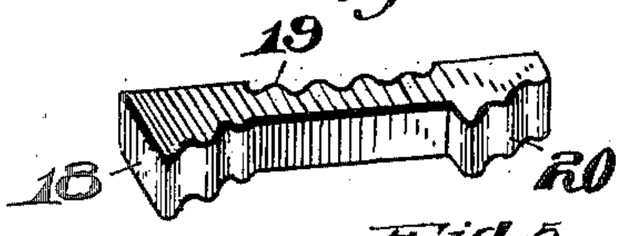


Fig. 5.

Fig. 6.

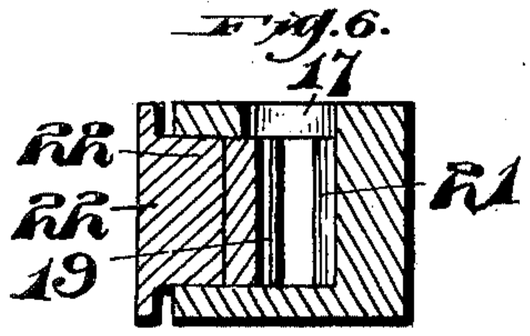


Fig. 7.

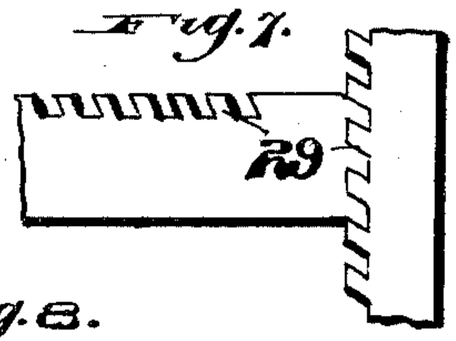


Fig. 8.

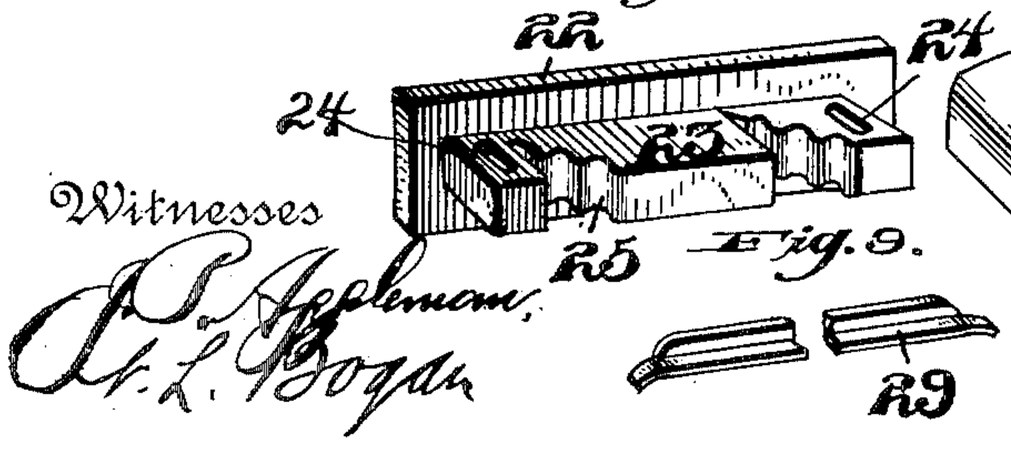
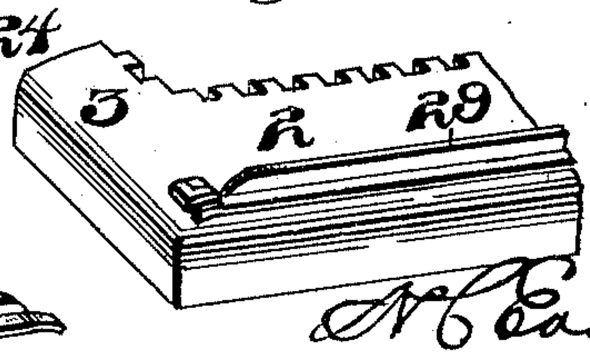


Fig. 9.



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PRINTER'S CHASE.

SPECIFICATION forming part of Letters Patent No. 667,946, dated February 12, 1901.

Application filed March 29, 1900. Serial No. 10,635. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. MILLER, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Printers' Chases, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in printers' chases, and is particularly adapted for locking up forms for use in connection with printing-presses.

The invention aims to provide a printer's chase adapted for adjustably connecting and retaining within the chase all the parts required for locking forms of different sizes therein successfully at different times to save labor in locking and unlocking forms and save time and labor in the work required in fitting and fixing form-locking mechanism, &c., generally adapted for locking and positioning forms, and, further, to obtain lightness, accuracy, and solidity.

Briefly described, the invention consists of a rectangular frame forming the chase and having the inner edge of the sides and ends formed with a series of locking-teeth, a set of longitudinally-extending main positioning-bars having one edge formed with a series of locking-teeth, auxiliary positioning-bars having their ends formed with a series of locking-teeth adapted to engage in the teeth of the main positioning bar or bars, and a series of locking-bars having their ends provided with locking-teeth which engage the teeth of the main positioning-bars and are each provided with locking means for securing the various bars and form in the desired position or for securing the form between the main and auxiliary locking-bars within the chase, and providing one face of the chase with a combination linear and printer's scale.

With the above and other objects in view the invention consists in providing a printer's chase which shall be extremely simple in construction, strong, durable, efficient in its operation, and comparatively inexpensive to manufacture.

The invention finally consists in the novel construction, combination, and arrangement of parts to be hereinafter more fully described, and specifically pointed out in the claims.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate corresponding parts throughout the several views, in which—

Figure 1 is a top plan view of my improved printer's chase. Fig. 2 is an end view thereof, showing the removable bearer to resist the pressure of the inking-rollers of job-presses upon the form. Fig. 3 is a perspective view of, the locking-bar with the wedge locking mechanism removed therefrom. Fig. 4 is a perspective view of the operating-wedge for the locking-block. Fig. 5 is a perspective view of the locking-block. Fig. 6 is an enlarged cross-sectional view taken on the line 6 6 of Fig. 1. Fig. 7 is a top plan view of a portion of the chase and one of the locking-bars, showing a modified form of teeth. Fig. 8 is a perspective view of one corner of the chase. Fig. 9 is a perspective view, broken away, of the roller-bearer.

Referring to the drawings by reference-numerals, 1 and 2 indicate parallel sides and 3 and 4 denote parallel ends of the rectangular frame or chase. They are preferably made of solid metal strips or bars of uniform thickness and each provided on their inner edge with a series of locking-teeth 5. The sides and ends are shown as formed integral, although the same may be cast separately and secured together in any desirable manner. Each notch or tooth on the inner face of the sides and ends is designed to measure the space of a pica type or one-sixth of an inch.

The reference-numerals 6 7 denote main positioning-bars, (as many may be provided as desired,) which have one of their edges formed with a series of locking-teeth 8, and each end also provided with a series of locking-teeth 9, and, as shown, the bars are arranged in a longitudinal manner, although these bars may be arranged transversely to the bars 1 2, if desired. These bars are further provided with a series of openings 10 for diminishing the weight thereof. Arranged between a pair of the main positioning-bars

is an auxiliary locking-bar 11, provided with openings 12 to diminish the weight thereof and having its ends formed with a series of locking-teeth 13, which engage within the teeth of the main positioning-bars.

The reference-numeral 14 indicates a locking-bar having each end formed with a series of locking-teeth 15, which are adapted to engage in the teeth of the main positioning-bars, and this locking-bar is arranged between the main bars, as shown. Either one or more locking-bars may be employed, and the same can be arranged transversely or longitudinally, as desired.

The locking-bar 14 is provided with a recess 16 and the opening 17 in the top thereof, terminating in the recess 16, and mounted within the recess 16 is an operating-wedge 18 for the locking-block. The operating-wedge has arranged thereon a series of teeth 19 upon one of its faces and on its opposite face has two or more corrugated shoulders or offsets 20 for forcing the locking-block outwardly. The bottom of the recess is formed with a toothed rack 21 in such a manner that when the operating-wedge 18 is arranged within the recess the toothed portion of the wedge will be at the front of the rack 21, so that when a key is inserted the wedge-block can be operated.

The locking-block consists of a rectangular piece of suitable material 22, arranged in a vertical manner and having its inner face formed integral with a flat rectangular block 23, which is seated within the recess 16 of the locking-bar. This block 23 is formed at each end with an opening 24 to receive a stay-pin 24′ to prevent its removal from the recess, and is further provided with a set of angular-shaped corrugated recesses 25, in which is arranged the offset or shoulder 20 of the operating-wedge when the locking-block is seated within the recess. The locking-bar 14 is further provided with openings 26 for the reception of the stay-pins 24′ for retaining the locking-block in position, as shown. The rectangular strip 22 of the locking-block is adapted to engage the form and secure the same in position when the locking mechanism is operated.

The inner face of the chase or rectangular frame is provided with a combination linear and printer's scale, as at 27, and the upper face of the sides 1 and 2 are each provided with a removable bearer 28, to resist somewhat the compression of the rollers upon the form.

The length and width of the inside measurement of the chase and length and width of all bars are based on pica measurement, and the teeth formed on the end of the main positioning-bar, the auxiliary positioning-bar, and locking-bar are so arranged that a shift of one pica or more can be obtained. This will enable the operator to shift the bars.

In Fig. 7 is shown a modified form of bar which consists of providing the inner edges of the chase and the ends of the bars with slanting or inclined teeth 29.

The operation of the improved chase is as follows: When a form is to be locked up that is much smaller than the chase, it is first desirable to ascertain what width or length it may be by means of the linear measurement upon the upper face of the chase. Either one or more of the main positioning-bars, according to the shape of the form, are placed within the chase and secured within the same by means of the engagement of the teeth on the ends of the bars with the teeth upon the chase. The auxiliary locking-bar, if desired, is then placed within the chase and having the ends thereof engaging the main positioning-bars or one of the main positioning-bars and the teeth of the chase. One or more locking-bars are then placed in position and the locking-block operated by means of a suitable key, the shoulders or offsets 20 engaging the teeth 25 forcing the block outwardly and strip 22 against the type, and the form is securely held within the chase. The invention is such that one or more of the positioning-bars can be used, the auxiliary bar dispensed with, or the auxiliary and one of the main positioning-bars dispensed with or the positioning-bars and auxiliary bar dispensed with and a locking-bar of sufficient length employed to engage the teeth of the bars 1 2.

The invention further permits the chase to be used without any bars whatsoever, thus not reducing the capacity of the chase. By using only one bar extremely long or narrow forms can be locked up quickly that may tax the capacity of the chase in one direction. The slanting teeth 29, as shown in Fig. 7, have an inwardly-wedging action when interlocked and obviate any lateral movement of the positioning-bars or of the locking-bar.

It is thought that the many advantages of my improved device can be readily understood from the foregoing description, taken in connection with the accompanying drawings, and it will be noted that various changes may be made in the details of construction without departing from the general spirit of my invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a printer's chase, the combination, with the rectangular frame comprising side and end bars, each of said bars being provided on its inner edge with teeth, and on their upper faces with a combined linear and printer's scale, of one or more positioning-bars having toothed ends to engage with the teeth on the inner edges of the end bars of the frame, said positioning-bars provided on their inner edges with teeth, an auxiliary bar provided with toothed ends to engage with the teeth on the inner edges of the positioning-bars, a locking-bar provided with toothed ends to engage with the teeth on the inner

edges of the positioning-bars, said locking-bar provided with a recess extending longitudinally of the bar and in its top with an opening communicating with said recess, a locking-block seated within said recess, and an operating-wedge arranged within said locking-bar and engaging said locking-block to actuate the latter and lock a form within the chase when the operating-wedge is operated, substantially as described.

2. In a printer's chase, the combination with the rectangular frame comprising integral side and end bars, each of said bars being provided on its inner edge with teeth, and removable cushioning-bearers carried by said frame, of one or more positioning-bars having toothed ends to engage with the teeth on the inner edges of the end bars of the frame, said positioning-bars provided on their inner edges with teeth, an auxiliary bar provided with toothed ends to engage with the teeth on the inner edges of the positioning-bars, a locking-bar provided with toothed ends to engage with the teeth on the inner edges of the positioning-bars, said locking-bar provided with a recess extending longitudinally of the bar and in its top with an opening communicating with said recess, a locking-block seated within said recess and an operating-wedge arranged within said locking-bar and engaging said locking-block to actuate the latter and lock a form within the chase when the operating-wedge is operated, substantially as described.

3. In a printer's chase, the combination with the rectangular frame comprising integral side and end bars, each of said bars being provided on its inner edge with teeth, of a pair of positioning-bars having toothed ends to engage with the teeth on the inner edges of the end bars of the frame, said positioning-bars provided on their inner edges with teeth, an auxiliary bar provided with toothed ends to engage with the teeth on the inner edges of the positioning-bars, a locking-bar provided with toothed ends to engage with the teeth on the inner edges of the positioning-bars, said locking-bar provided with a recess and in its top with an opening communicating with said recess, a locking-block seated within the recess of the locking-bar, a strip carried by said locking-block, and an operating-wedge arranged within the recess of the locking-bar and engaging with said locking-block to actuate the latter and lock a form within a chase, substantially as described.

4. In a printer's chase, a frame comprising integral side and end bars, each of said bars being provided on its inner edge with teeth, a removable pressure-resisting bearer carried by each of said side bars, and a pair of positioning-bars having toothed ends to engage with the teeth on the inner edges of the end bars, said positioning-bars provided on their inner edges with teeth, combined with a locking-bar having toothed ends and provided with a recess extending longitudinally of the bar and in its top with a rack communicating with said recess, a rack formed at the rear wall of said recess, a locking-block seated within said recess, a strip carried by said block outside the bar, and an operating-wedge arranged within said recess and adapted when actuated to operate the locking-block to lock a form within the chase.

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

CHARLES E. MILLER.

Witnesses:
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E. W. ARTHUR.