F. C. LEETHEM.

CHASE.

APPLICATION FILED APR. 5, 1913.

1,167,084.

Patented Jan. 4, 1916.

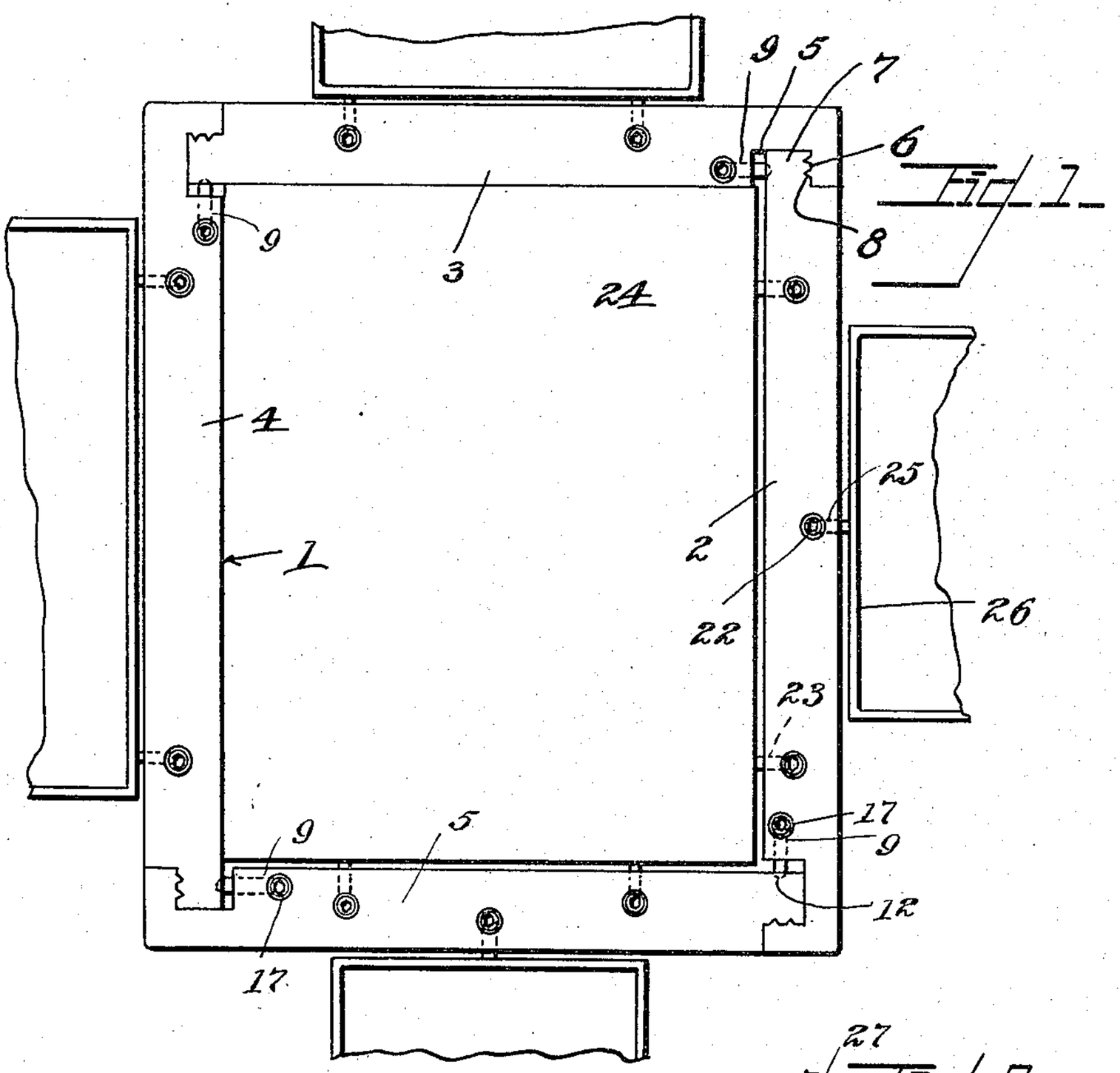

Fig. 1.

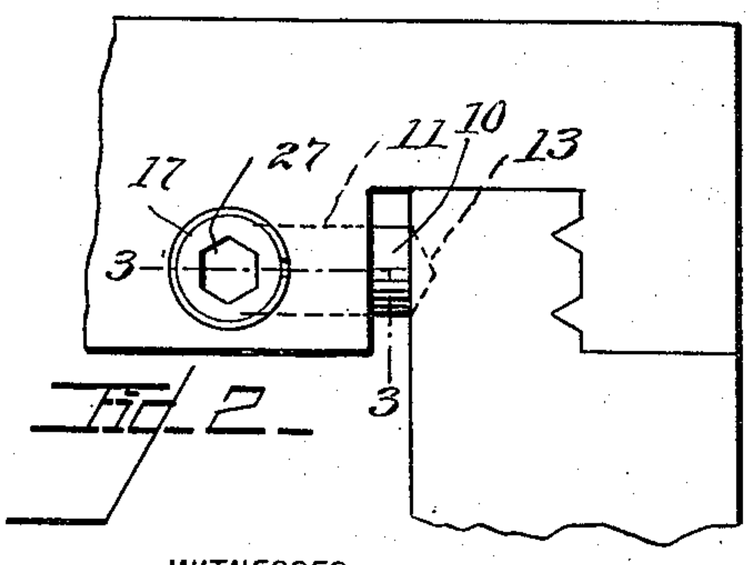

Fig. 2.

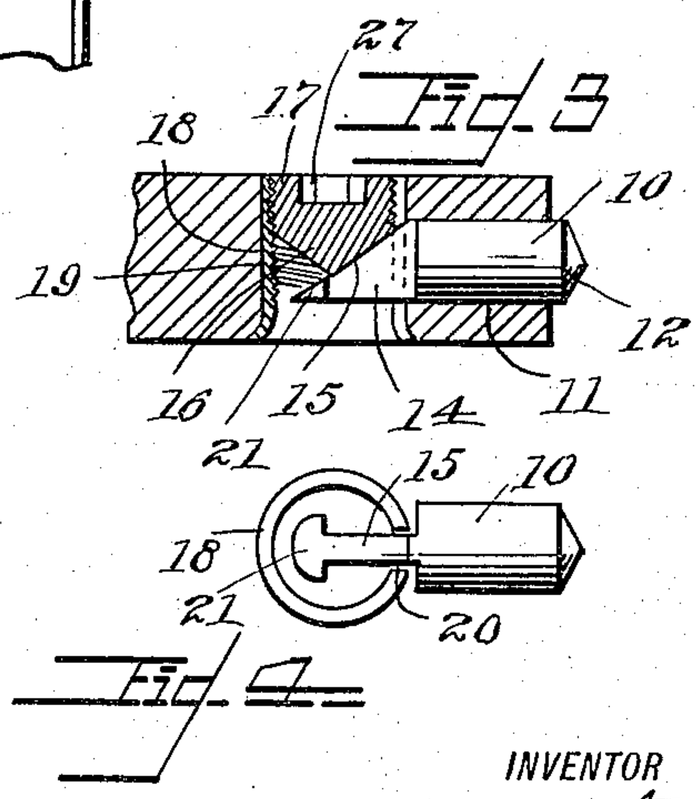

Fig. 3.

Fig. 4.

WITNESSES:

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CHASE.

1,167,084. Specification of Letters Patent. Patented Jan. 4, 1916.

Application filed April 5, 1913. Serial No. 759,244.

To all whom it may concern:

Be it known that I, FRANK C. LEETHEM, a citizen of the United States, residing at Middletown, State of New York, have invented certain new and useful Improvements in Chases, of which the following is a clear, full, and exact description.

This invention relates to a printer's chase, and one of the objects of the invention is to produce a chase formed of rails having an improved joint for connecting them together to form the corners of the chase.

A further object of the invention is to produce a corner joint for a chase which can be very simply put together but which will be very rigid and secure when in use.

The corner joint involves the use of a locking device which also constitutes a feature of my invention.

Other objects of the invention will appear more clearly from a thorough understanding of the invention.

The invention consists in the general combination of parts or in the features of said parts hereinafter described, all of which contribute to produce an efficient printer's chase.

A preferred embodiment of my invention will be particularly described in the following specification while the broad scope of my invention will be pointed out in the appended claims.

In the drawings, Figure 1 is a plan of a chase embodying my invention, certain parts being broken away; Fig. 2 is a plan showing the corner of the chase upon an enlarged scale; Fig. 3 is a vertical section taken on the line 3—3 of Fig. 2 and further illustrating the locking device; Fig. 4 is a detail view further illustrating the preferred form of the locking device.

Referring more particularly to the parts, the chase 1 is formed of rails 2, 3, 4 and 5 attached together in rectangular form. In forming the corner joint for connecting adjacent rails such as the rails 2 and 3, I provide one of the rails such as the rail 3 with a deep notch or socket 5 on its inner edge. This notch may be of substantially rectangular or square form, so that it presents a shoulder 6 extending transversely of the rail 3 and transversely to the plane of the chase.

The rail 2 is formed at its end with a tongue or projection 7 which extends into the socket 5 and preferably with its end abutting against the bottom of the notch or socket 5. The side edge of this projection 7 which comes against the shoulder 6 is constructed so that it interlocks with the shoulder 6 and in this way I form two interlocking shoulders disposed transversely to the rail 3. I prefer to bring about this interlocking effect by means of one or more projections or teeth 8 in one of the shoulders fitting in corresponding notches in the opposite shoulder. The width of the notch or socket 5 is sufficiently great to enable the projection 7 to have considerable play or movement. This lateral movement enables the shoulder to engage with or disengage from the teeth or interlocking means 8.

On the side of the notch 5 opposite to the interlocking shoulders at the point 6, I provide a locking device 9 which is preferably constructed as illustrated in Figs. 2 to 4. Each locking device preferably comprises a bolt 10 which is mounted at one side of the shoulders in a bore 11 in the rail and arranged so that it is adapted to be extended out into the notch so as to engage the adjacent edge of the other rail and force it laterally to lock it in the socket. These bolts are preferably formed with tapered or conical noses 12 which engage with corresponding conical recesses 13 in the edge of the rail which the bolt clamps. In order to project the bolt 10 outwardly to lock the joint, I prefer to construct the rear end of the bolt with a reduced or narrow shank 14 having an inclined edge 15 which is adapted to rest against a conical tip 16 which is formed on the lower portion of an adjusting screw 17, said screw preferably being mounted in a threaded bushing 18. This bushing is simply set in a bore 19 in the rail and is formed with a longitudinal slot 20 which enables the shank 15 to pass into the interior of the bushing. Some means is provided for limiting the outward movement of the bolt when forced outwardly by screwing in the adjusting screw. For this purpose I prefer to provide the tip of the shank 14 with an enlargement or head 21 which will not pass through the slot.

Along the length of the rails I provide locking devices 22 similar to the locking devices 9 already referred to except that the

bolts 23 of these locking devices have flat ends. These locking devices 23 are arranged so that some of them will extend their bolts beyond the outer edge of the rail and some of them beyond the inner edge. This enables the clamping devices 22 to clamp the form 24 within the chase securely in place and also enables the outwardly extending bolts 25 to be clamped against the furniture 26 set around the chase. In this way the chase may be held rigidly on the press bed.

The adjusting screws 17 are preferably formed with angular sockets 27 which are adapted to receive a wrench for the purpose of tightening up the locking bolt. These adjusting screws are preferably arranged so that the upper faces are flush with or below the upper face of the chase.

It is understood that the embodiment of the invention described above is only one of the many embodiments or forms the invention may take, and I do not wish to be limited in the practice of my invention nor in the scope of my claims to the particular embodiment described.

What I claim is:—

1. A chase having adjacent rails forming a joint at the corner thereof, one of said rails having a socket in the inner edge thereof, the other of said rails having a projection received in said socket and freely movable across said socket, and means carried by one of said rails for drawing said projection laterally to lock the same in said socket.

2. A chase having adjacent rails forming a joint at the corner thereof, one of said rails having a socket in the inner edge thereof, the other of said rails having a projection received in said socket and freely movable across said socket, and means carried by one of said rails for locking said projection in said socket, the edge of said socket and edge of said projection being constructed so as to interlock when said projection is moved laterally in said socket to prevent a relative movement of said rails.

3. A chase having adjacent rails forming a corner joint of the chase, one of said rails having a socket with a locking shoulder extending transversely to the longitudinal axis of that rail and transversely to the plane of the chase, the other of said rails having a locking shoulder interlocking with said first locking shoulder to prevent a relative movement of said rails, and means carried by one of said rails engaging the adjacent edge of the other rail to force the other rail laterally to lock said shoulders together.

4. A chase having adjacent rails forming a corner joint of said chase, one of said rails having a socket on the inner edge thereof, the other of said rails having a projection at the end thereof adapted to be received with lateral play in said socket, said socket and said projection having interlocking projections and recesses, and a locking member movably mounted in one of said rails at the joint for holding the parts and locking said projection and socket together.

5. A chase consisting of rails and joints having shoulders extending transversely to the plane of the chase from one side face of the chase to the other and connecting the ends of said rails, and a sliding bolt mounted at one side of said shoulders adjacent each joint and having a projecting end adapted to press itself against one of the rails to force the interlocking shoulders toward each other.

6. A chase having a side rail, a bolt mounted to slide in said rail and adapted to be extended beyond the edge thereof, an adjusting member mounted in the side of said rail and adapted to move downwardly toward the interior of said rail, a threaded bushing carrying said member and having a longitudinal slot, said bolt having an extension passing into said bushing through said slot, said member and said bolt having inclined engaging faces adapted to advance said bolt when said adjusting member moves.

7. A chase having a rail with a bore passing therethrough, an adjusting screw mounted in said bore, a bolt mounted to slide in said rail and adapted to extend beyond the edge thereof, said bolt having an extension passing into said bore, said extension having an inclined edge engaging said adjusting screw whereby said bolt may be advanced by said adjusting screw, said extension having an enlargement within the bushing of greater width than said slot whereby said bushing retains said bolt.

8. A chase having a rail and a transverse bore therein, a bushing mounted in said bore and having an internal thread and a longitudinal slot, a locking bolt movably mounted in the side of said rail and adapted to project beyond the edge thereof, said bolt having an extension passing through said slot into said bore, said extension having an inclined edge, said adjusting screw having an inclined tip engaging said inclined edge for advancing said bolt.

9. A chase having rails with locking devices mounted therein, certain of said locking devices having members adapted to be extended beyond the inner edges of said rails, certain of said locking devices having members adapted to be extended beyond the outer edges of said rails, whereby said locking devices may lock parts on the interior of the chase and may lock said chase in position by pressure against furniture laid around the chase.

10. A chase having adjacent rails forming a corner joint of the chase, one of said rails having a socket with a locking shoul-

der extending transversely to the longitudinal axis of that rail, and transversely of the plane of the chase, the other of said rails having a locking shoulder interlocking with said first locking shoulder by a lateral movement parallel with the plane of the chase to prevent a relative movement of said rails, and means carried by one of said rails for forcing the shoulders relatively to each other in the direction in which they interlock, to lock said shoulders together.

Signed at New York city, N. Y., this 3" day of April, 1913.

FRANK C. LEETHEM.

Witnesses:
F. D. AMMEN,
BEATRICE MURIS.