

M. MUCHLER.

QUOIN.

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939,950.

Patented Nov. 9, 1909.

Fig. 1.

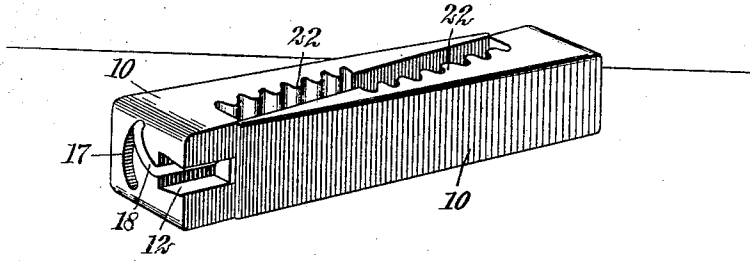


Fig. 2.

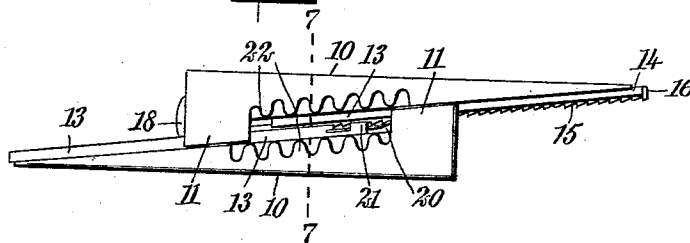


Fig. 3.

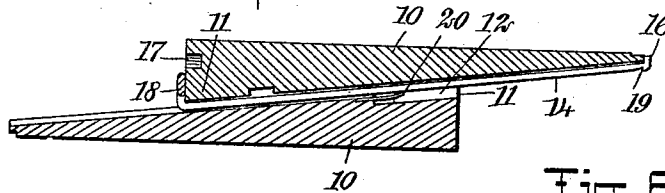


Fig. 4.

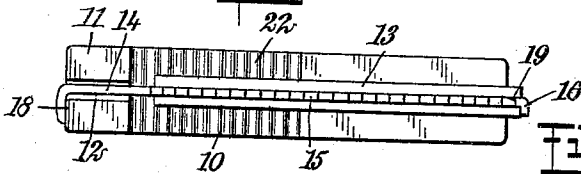


Fig. 5.

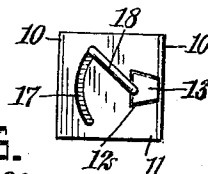


Fig. 6.

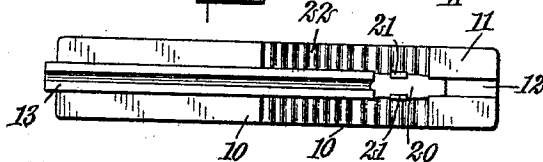
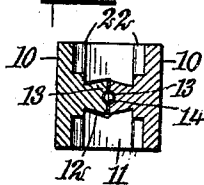


Fig. 7.



WITNESSES

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QUOIN.

939,950.

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To all whom it may concern:

Be it known that I, MARTIN MUCHLER, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Quoin, of which the following is a full, clear, and exact description.

The invention belongs to that class of printers' quoins embodying two wedges slidable longitudinally one on the other, and has in view means to prevent the separation of the wedges either by a relative endwise or lateral movement, and also means including a ratchet bar to automatically lock the wedges against endwise movement in a direction to decrease the thickness of the quoin, the rack bar being movable into and out of operation.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the complete quoin, with the wedges assembled and drawn outwardly from each other to reduce the thickness of the quoin to a minimum; Fig. 2 is a plan of the quoin, with the wedges in an intermediate position of their longitudinal movement; Fig. 3 is a longitudinal horizontal section through the quoin; Fig. 4 is an inner face view of one of the wedges of the quoin; Fig. 5 is an inner face view of the other wedge of the quoin; Fig. 6 is an end view of the quoin; and Fig. 7 is a cross-section of the quoin substantially on the line 7—7 of Fig. 2.

The quoin is constructed of two wedges 10, 10, slidable one on the other, with the inclined faces of the wedges in opposed position and the ends of the wedges reversely arranged. Each wedge 10 has a lug or projection 11 on its inclined face adjacent to its thickest end, and each lug is provided with a dove-tailed or undercut way 12, in which is slidably received a correspondingly-shaped rib arranged longitudinally on the inclined face of the other wedge. The ribs and walls of the ways when the wedges are assembled, prevent the latter from being separated by a relative lateral movement, and the lugs 11 prevent the separation of the wedges by an endwise movement in a direction increasing the thickness of the quoin. The ribs 13 of

the wedges are each provided with a longitudinal central groove in its upper face to receive a wire 14 having ratchet teeth 15 formed at one side for the greater part of the length of the wire, and with one end of the wire offset as indicated at 16 to engage the outer end of one of the ribs 13, and passing through the way 12 of the same wedge, at which point it is turned over the end of the wedge and into a guide groove 17 and forms a finger-piece 18 for giving the ratchet teeth or ratchet bar a partial revolution. This movement of the bar in the form of the invention shown is approximately ninety degrees and limited in each direction by the slot 17. Adjacent to the offset extremity 16 of the wire or rack-bar, the latter is provided with a tooth 19 at the side of the arm adjacent to the teeth 15, and is moved into and out of operative position when the teeth 15 are respectively moved into and out of inoperative position. To the other wedge 10 is attached a flat spring pawl 20, one end of the spring being fixed between the inner end of the rib 13 and projection 11, with the opposite and other end of the spring turned outwardly from the wedge to engage the teeth of the rack-bar. When the wire is moved to turn the teeth 15 outwardly, the spring pawl automatically locks the wedges against retraction as their thickened ends are moved toward each other. The spring further operates to engage the tooth 19 when this tooth is moved to an operative position and the wedges are retracted, thus preventing the separation of the wedges by an endwise movement tending to move their thin end portions over each other. When the spring 20 engages the tooth 19, the wedges will be in the positions shown in Fig. 1, in which the ribs 13 are only partially withdrawn from the ways 12. The connection between the spring 20 and its wedge is preferably effected by cutting a slot into the rib 13 approximately parallel to its outer face, to receive the inner end of the spring, and engaging the spring at opposite sides by fingers 21 forming an extension of the rib. The wedges at each side of the respective rib 13 and adjacent to the projections 11 are provided with the customary transverse teeth 22 for the reception of the key in locking the wedges together after the proper adjustment of the quoin is arrived at.

Having thus described my invention, I

claim as new and desire to secure by Letters Patent:

1. The combination of two wedges slidable one on the other, with the corresponding ends of the wedges reversely arranged, a pawl carried by one of the wedges and a ratchet bar carried by the other wedge, having teeth on different faces, with the teeth on one face adapted to be engaged by the pawl and prevent the retraction of the wedges as their thickened ends are moved toward each other, and the tooth on the other face adapted to engage the pawl and prevent the separation of the wedges by a relative endwise movement in one direction, and means to revolve the ratchet bar to bring either the teeth or the tooth into position to be engaged by the pawl.

2. The combination of two wedges slidable one on the other, with the corresponding ends of the wedges reversely arranged, a pawl carried by one of the wedges and a ratchet bar carried by the other wedge, having teeth on different faces, with the teeth on one face adapted to be engaged by the pawl and prevent the retraction of the wedges as their thickened ends are moved toward each other, and the tooth on the other face adapted to engage the pawl and prevent the separation of the wedges by a relative endwise movement in one direction, means to revolve the ratchet bar to bring either the teeth or the tooth into position to be engaged by the pawl, and means to limit the rotary movement of the ratchet bar when the teeth and the tooth are respectively in operative and inoperative positions.

3. The combination of two wedges, each having a rib on its inclined face slidably received in a way formed in the other wedge, and means to lock the wedges against retraction and prevent their separation by an endwise movement in one direction, including a member having different working portions and revolvably mounted to successively bring the said portions into working position.

4. The combination of two blocks slidable one on the other, a pawl carried by one of the blocks, a ratchet bar carried by the other block and having teeth on different faces, and means to revolve the ratchet bar to successively bring the teeth of the different faces into position to be engaged by the pawl.

5. The combination of a pair of endwise extensible members, a ratchet bar carried by one of said members and having ratchet teeth, a pawl carried by the other member and arranged to engage with the teeth of the ratchet bar and lock the two members from endwise movement in one direction and permit of the free endwise movement of the members in the opposite direction, and means to revolve the ratchet bar relatively to the members to carry the teeth into and out of operative position for the pawl.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MARTIN MUCHLER.

Witnesses:

W. W. HOLT,
JOHN P. DAVIS.