

No. 694,313.

Patented Feb. 25, 1902.

F. J. BECK.
PRINTER'S QUOIN.

(Application filed Oct. 19, 1900.)

(No Model.)

Fig. 1.

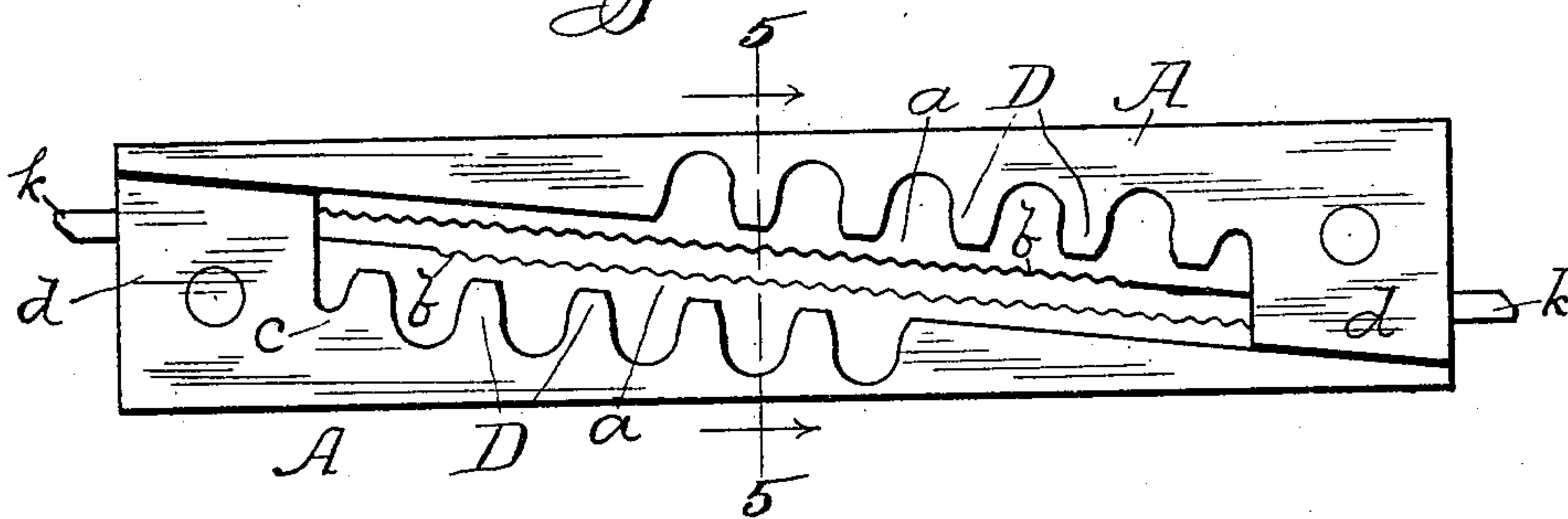


Fig. 2.

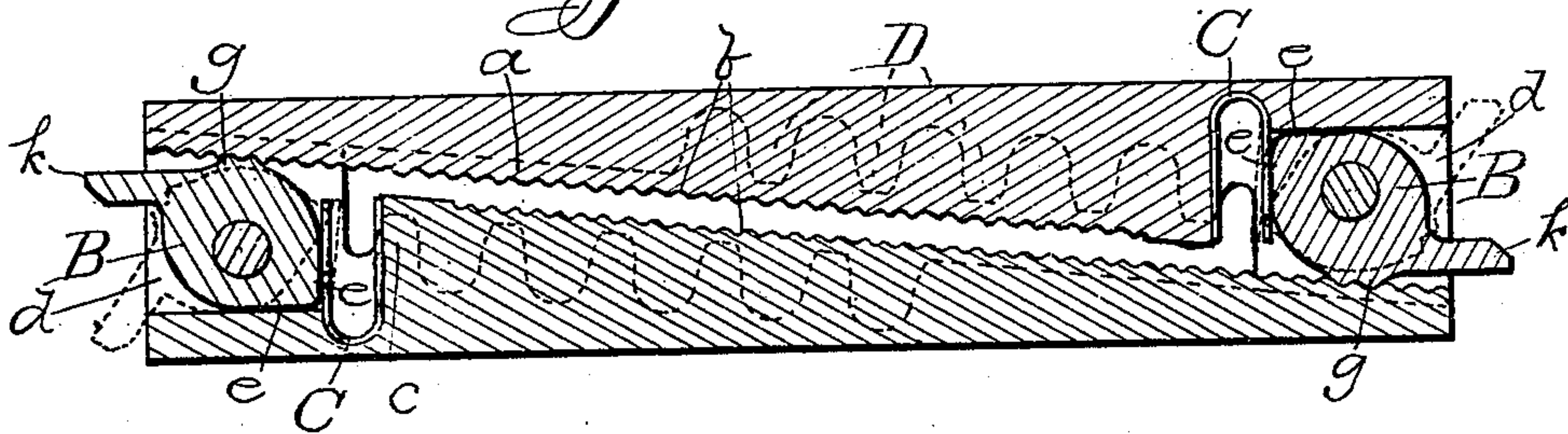


Fig. 3.

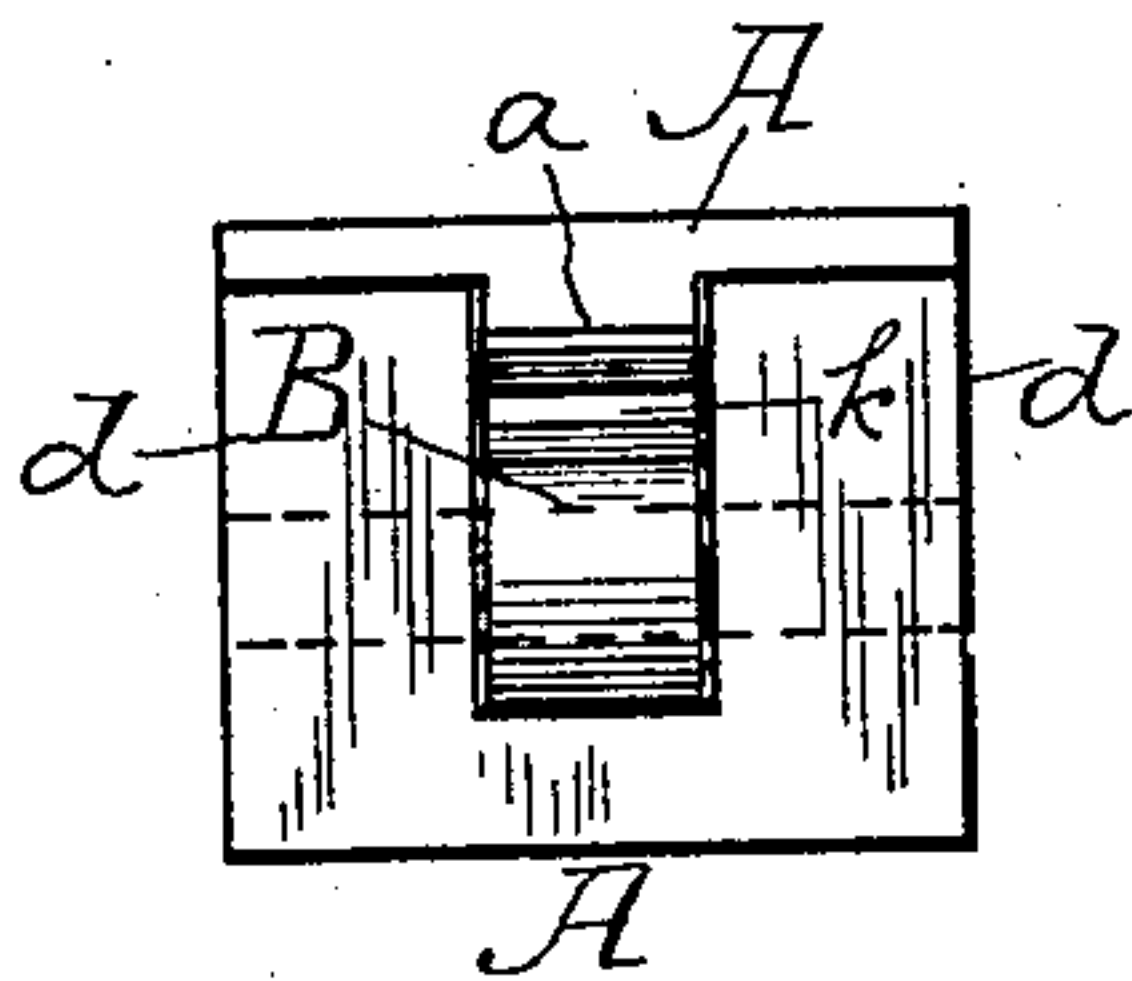


Fig. 4.

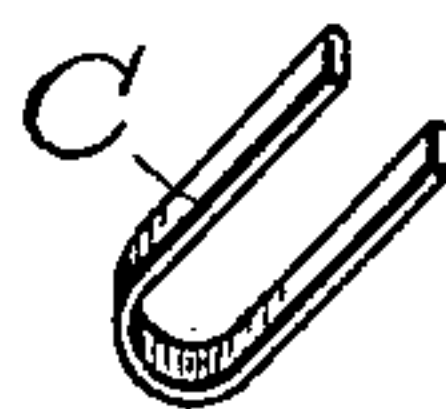
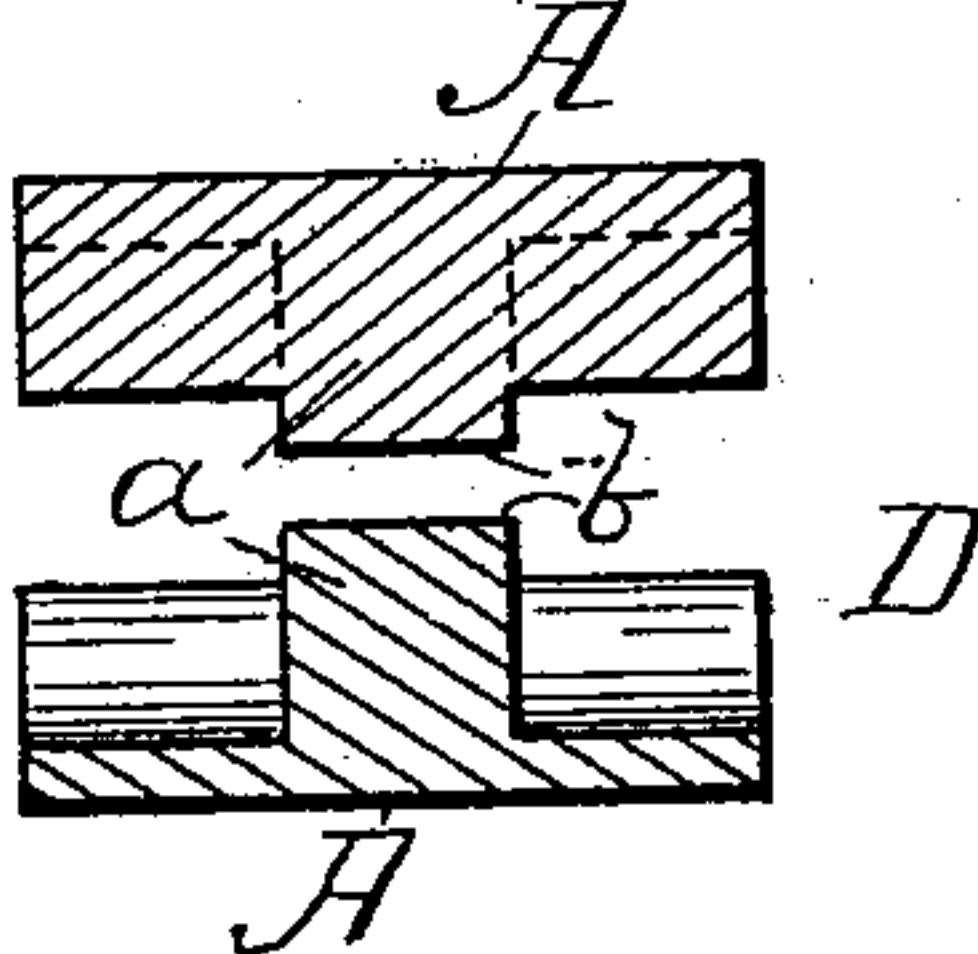


Fig. 5.



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PRINTER'S QUOIN.

SPECIFICATION forming part of Letters Patent No. 694,313, dated February 25, 1902.

Application filed October 19, 1900. Serial No. 33,546. (No model.)

To all whom it may concern:

Be it known that I, FERDINAND J. BECK, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Printers' Quoins, of which the following is a full, clear, and exact specification.

My invention relates to metal wedge-shape quoins, which are generally used in pairs; and the object of said invention is to lock said quoins together by easily-manipulated locking devices, so as to prevent the possibility of their inclined engaging surfaces slipping upon each other, and thus permitting the form to become loose and possibly cause great damage to both type and press. This I accomplish by the means hereinafter fully described, and as particularly pointed out in the claims.

In the drawings, Figure 1 is a side view of a pair of quoins embodying my improvements. Fig. 2 is a longitudinal central section therethrough. Fig. 3 is an end view of the same. Fig. 4 is a detail view of the spring used in connection therewith. Fig. 5 is a transverse section taken on dotted line 5 5, Fig. 1.

In the drawings, A represents the quoins, each having one side flat and of rectangular dimensions and having the opposite side inclined in substantially the same manner as those now in extensive use. Like those now in extensive use, my improved quoins are used in pairs and have their inclined sides placed together or face each other. Each quoin is provided on its inclined side with a correspondingly-inclined central rib *a*, the edge or inclined surface of which is provided with a series of transverse serrations or corrugations *b* of suitable depth. This rib *a* extends from the thinnest end of each quoin to near the opposite thickest end of the same, where they merge and terminate in a transverse wall *c*, which latter preferably conforms in dimensions to the transverse contours of the quoin at this point. Extending longitudinally from the ends of this wall *c* toward and preferably to the plane of the thickest end of each quoin are two corresponding lugs *d d*, the space separating which is in alinement with the rib *a*, but preferably a little wider, so as to afford ample space for the cam B (which latter is

about the same width as said rib) to be placed between them.

The cam-detent B, which is placed between the lugs *d* of each quoin, is sort of heart shape, with the lobes eliminated. The straight sides *e e* of the detent, which converge to form the apex, are arranged at right angles to each other, and when said detent is pivoted between lugs *d d* by a pivotal pin striking eccentrically therethrough a U-shape metal spring C, seated between it and the wall *c*, will bear against one of the straight sides *e*, according to one of the two positions said detent is adapted to occupy, and hold it in such position against accidental displacement.

The minor axis of the cam-detent is of such extent and the pivotal center thereof is so located that a segment of the rounded end thereof projects above the inclined plane of the rib *a* and is provided with transverse serrations or corrugations *g*, which when a pair of the quoins are locked together in a form engage the corrugations or serrations *b* of the rib *a* of the companion quoin near the thinnest end thereof. Projecting tangentially in a longitudinal direction from this corrugated surface *g* of said detent is a finger *k*, which extends beyond the thickest end of the quoin, where it can be readily reached by a shooting-stick and manipulated to move said cam-detent either to lock the companion quoin thereto or unlock the same and permit the two to slip upon each other.

Alongside of the rib *a* the portion of the beveled or inclined surface of each quoin nearest wall *c* is provided with a series of indented teeth D, which are adapted to be engaged by the key usually employed with this class of quoins to slide the same one upon the other. I make no claim, however, to this construction, and it could be dispensed with.

The operation of the device is as follows: The quoins when inserted in their proper position in the form are brought to bear outwardly in the usual manner by sliding the two sections by each other, the cam-detents being turned by their projecting fingers out of engagement with the serrated rib. When the quoins are in the proper position, the cam-detents are snapped back by the projecting fingers, and thereby are brought into spring-pressed engagement with the serrated

rib of the opposing quoins, thus locking them firmly against longitudinal displacement.

What I claim as new is—

1. The combination, in a quoin, with a longitudinal rib *a* extending from the thin end nearly to the thick end thereof and provided with transverse serrations in its inclined edge, and parallel lugs adjacent to said thicker end the space between which aligns with said rib, of a cam-detent, eccentrically pivoted between said lugs, and a spring engaging the same.

2. In a quoin, the combination with a longitudinal rib *a* extending from the thin end nearly to the thick end of the same, and provided with transverse serrations in its inclined edge, and parallel lugs adjacent to said thicker end the space between which aligns with said rib, of a heart-shape cam-detent, eccentrically pivoted between said lugs, which is adapted to engage the serrations of said edge, and a U-shape spring between said detent and the end of said rib, adapted to bear against

the surfaces on each side of the apex thereof to hold said detent against accidental movement.

3. In a quoin, the combination with a longitudinal rib *a* extending from the thin to near the thicker end thereof and provided with a series of transverse serrations in its inclined edge, a transverse wall *c* near the thicker end of the quoin in which said rib merges and terminates, and parallel lugs *d d* between said wall and the thick end of said quoin, of a heart-shape cam-detent eccentrically pivoted between said lugs, having the segment thereof nearest the plane of the incline edge of the rib provided with serrations and having a finger *g* projecting therefrom, of a U-shape spring between the end of said rib and detent, and adapted to bear against and prevent the accidental movement thereof.

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