

No. 657,253.

Patented Sept. 4, 1900.

W. G. SLAUSON.

PRINTER'S QUOIN.

(Application filed June 15, 1899.)

(No Model.)

Fig. 1.

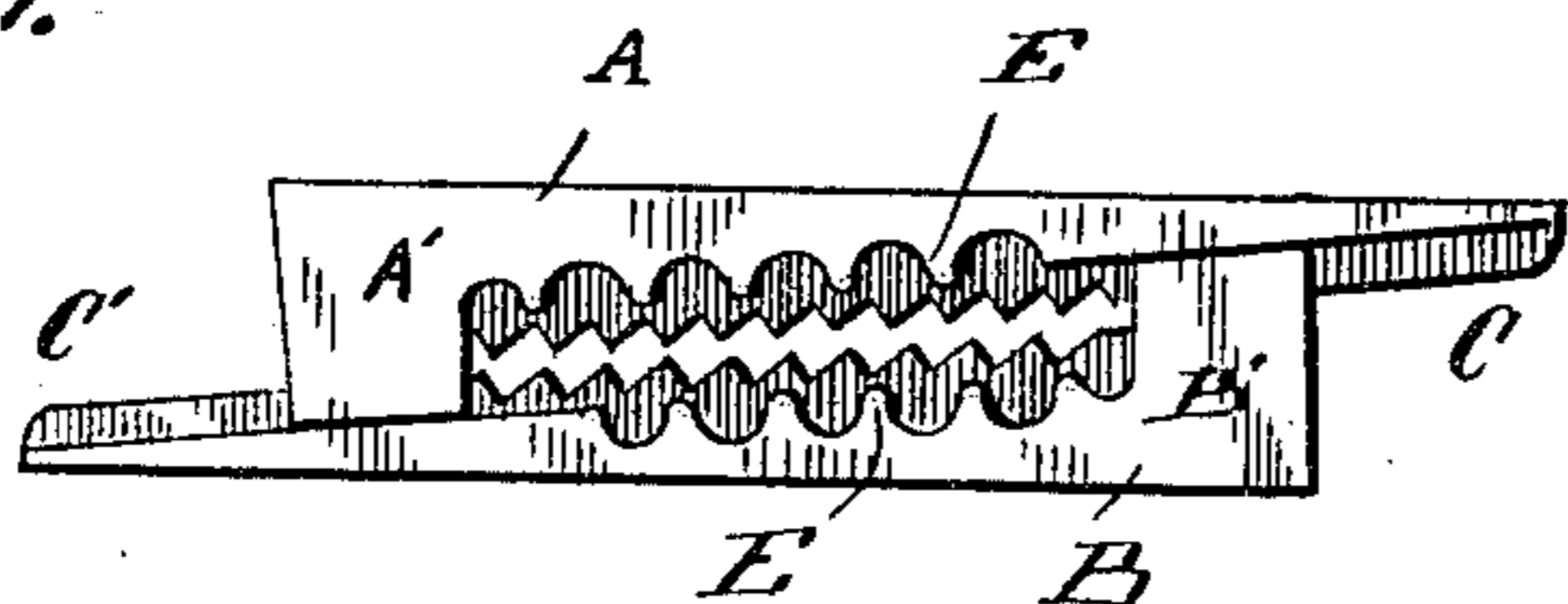


Fig. 7.

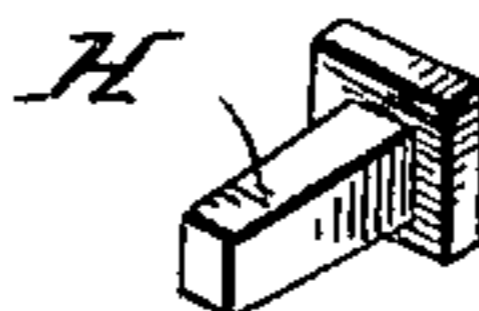


Fig. 8.

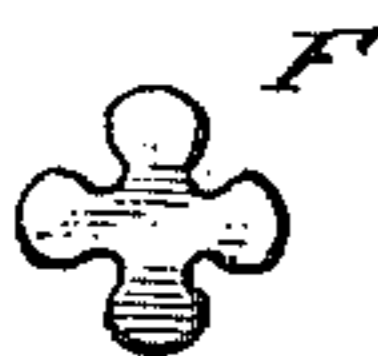


Fig. 2.

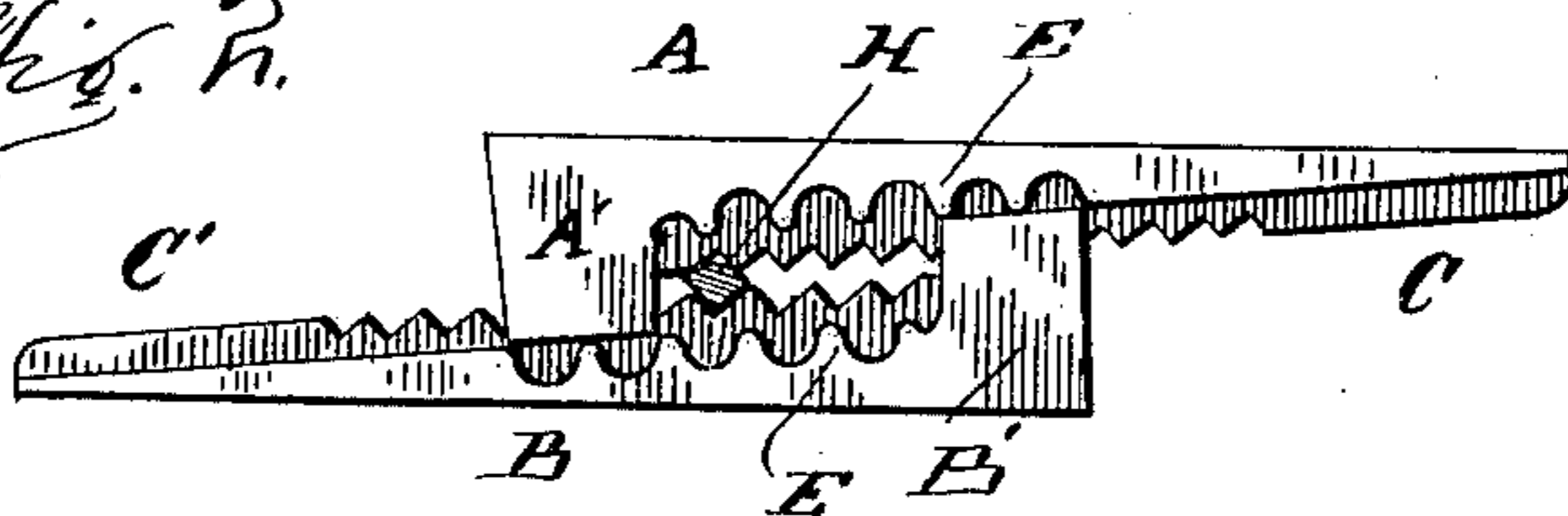


Fig. 3.

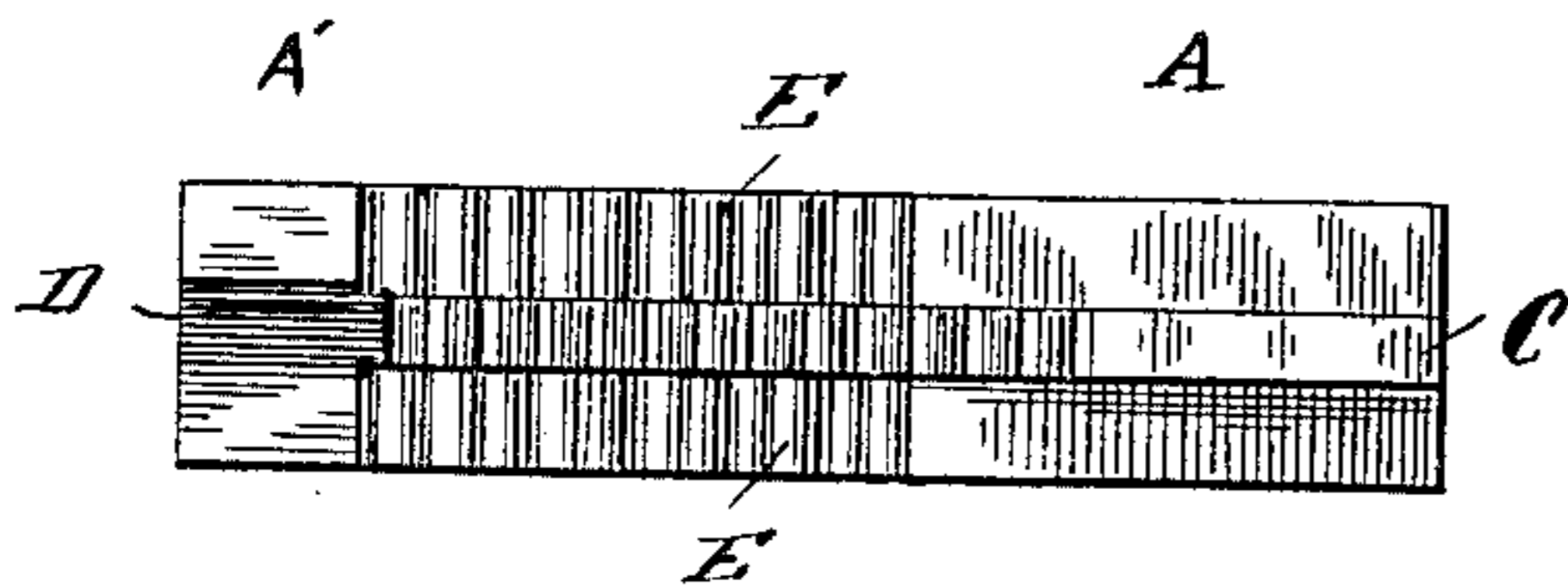


Fig. 5.



Fig. 4.

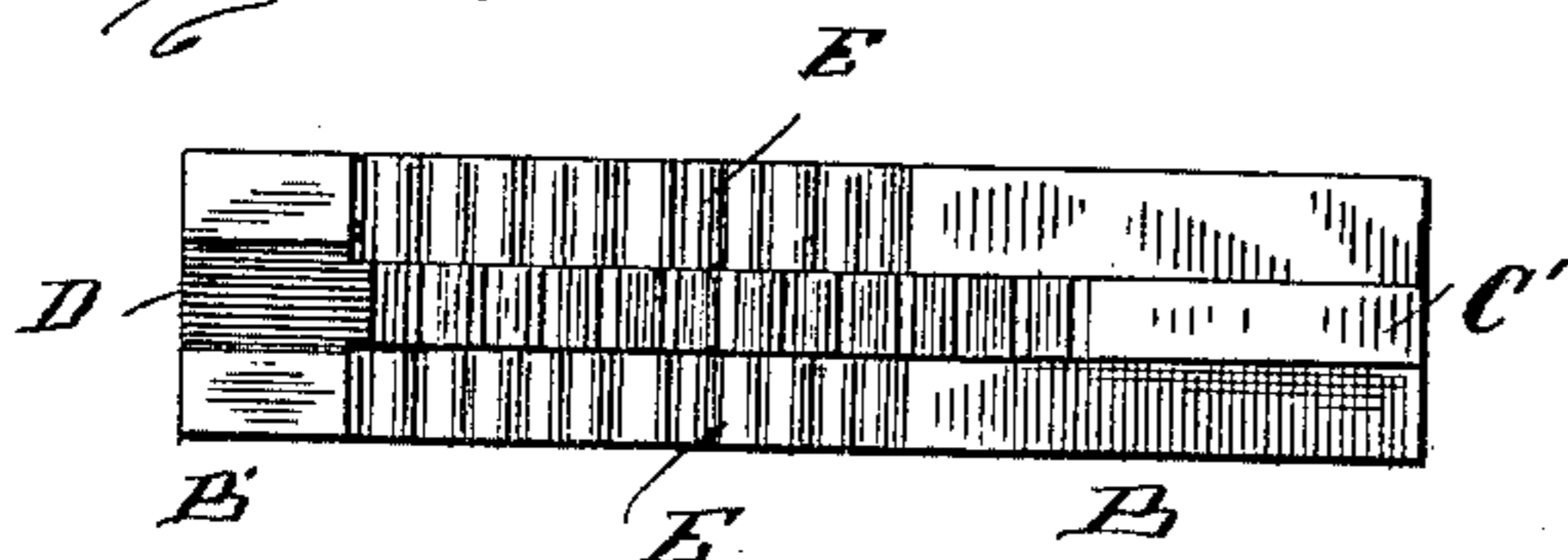


Fig. 10.

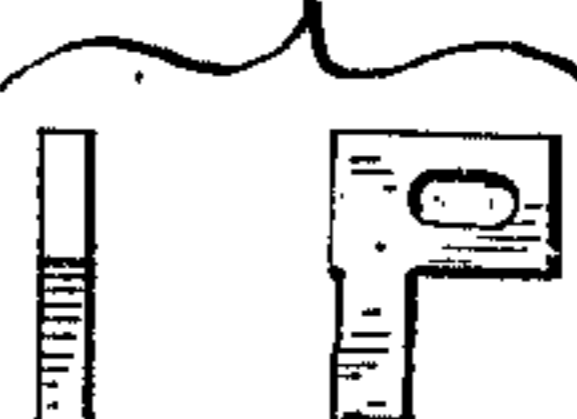


Fig. 6.

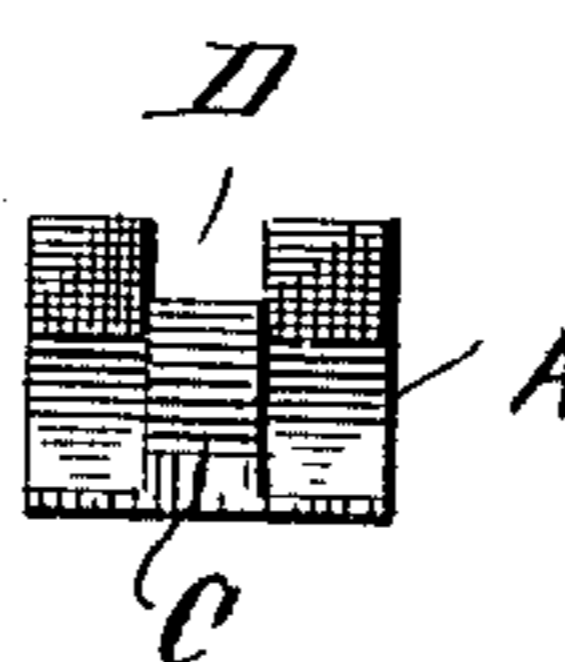
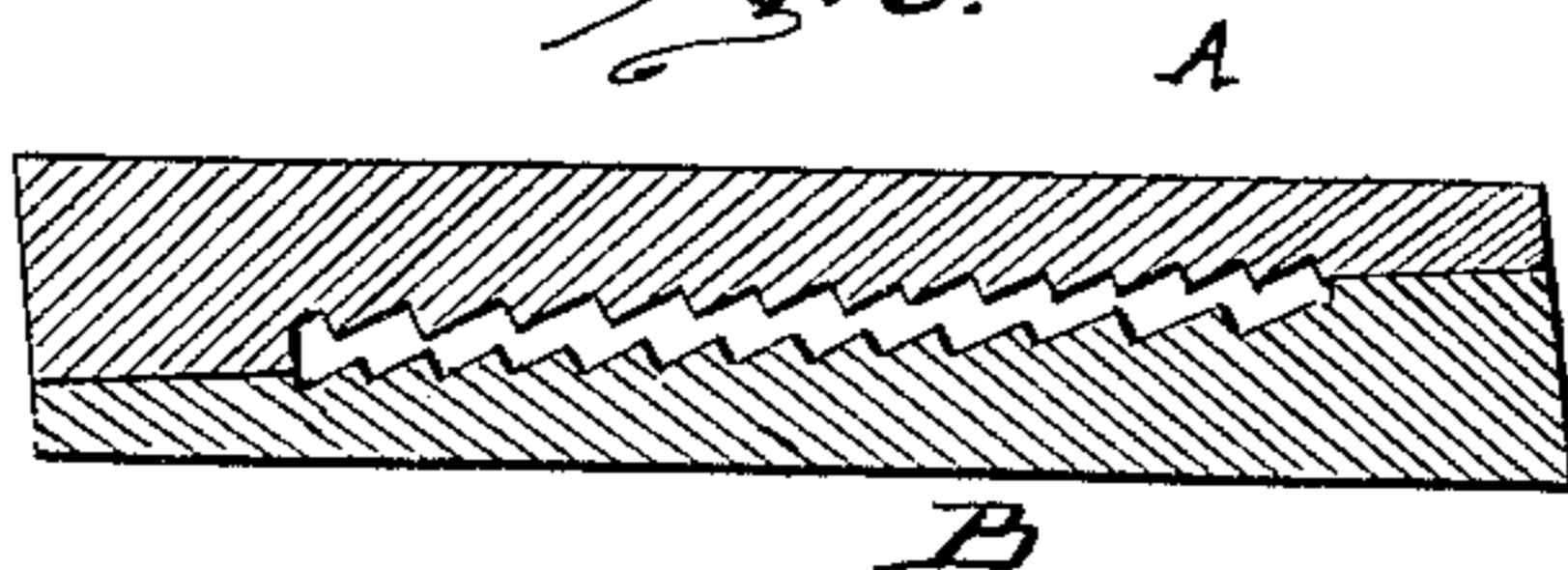


Fig. 9.



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PRINTER'S QUOIN.

SPECIFICATION forming part of Letters Patent No. 657,253, dated September 4, 1900.

Application filed June 15, 1899. Serial No. 720,638. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM G. SLAUSON, a citizen of the United States, residing at Olean, in the State of New York, have invented certain new and useful Improvements in Printers' Quoins, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a quoin for printers' use.

The object of the invention is to produce a quoin which may be positively locked in any of its adjusted positions.

In the drawings as illustrating my invention the well-known Hempel quoin is shown with my improvement applied; but the improvement is applicable to many other forms of quoins; and it consists, in a broad sense, in the provision of what may be called a "vernier key-seat," whereby a locking-key may be applied to the quoin to give a positive hold in any position of the quoin.

In the Hempel quoin and other quoins where the quoin is held in locked position by friction only there is danger that the vibration of the press may cause the quoins to slip and loosen. In such case a form of type may be pied, a valuable cut destroyed, or a press badly damaged. Even when such accidents do not occur the fear that some such thing may happen causes the pressman to stop his press from time to time to test the lock-up, which is of course a waste of time and an annoyance and anxiety. Quoins have been positively locked up by a key inserted in a seat between the wedges or a spring engaging a ratchet; but in such devices with which I am familiar the locking can only take place when quoins have been moved a full space of a rack-tooth, which is objectionable, as with metallic quoins a form should not be locked so tightly as to compress the type nor so loosely as to endanger the security of the form.

Figure 1 is a plan of a Hempel quoin with my vernier-notched rib. Fig. 2 is a similar plan of the quoin expanded and locked by a key shown in section. Fig. 3 is an elevation of one of the wedges of the quoin. Fig. 4 is an elevation of the other wedge. Fig. 5 is an end view of the large end of a wedge. Fig. 6 is a view of the small end of the wedge.

Fig. 7 is a perspective view of the locking-key, and Fig. 8 is an end view of a wrench. Fig. 9 is a central horizontal section of quoin, showing notches in modified form. Fig. 10 is a modified locking-key.

The Hempel quoin consists of two metallic wedges A and B, each having a notch D in the wide end or head A' B', in which notch rib C on the other part is guided to maintain the parts in vertical parallelism. The proximate faces of the wedges are provided with notches or wrench-seat teeth E, and by the application of a wrench F when the sections are in locking relation and turning the wrench the wedges may be slid along, so that the wider parts instead of the narrower parts of the wedges are adjacent and the quoin is spread.

In my improvement of the Hempel quoin I notch the two ribs C C', but not with notches with like proportions. Thus supposing the teeth on rib C to be eight to the inch, I would make the teeth on rib C' nine to the inch or other number not a close multiple of one-eighth. Then when the parts were applied and the quoin expanded a locking pin or key H may be applied to that one of the notches which most nearly approximates a rectangle. As the notches are not common divisors of a given length, (within wide limits,) it follows that there will be one opening between the notches in which the key H may be inserted in almost any position of the wedges, and the eye will readily select the opening made by the two notches, which together form a proper key-seat, and into this the key H may readily pass, whereas no other opening will receive such key. This vernier arrangement of the notches permits the introduction of the locking-key H into one opening in any locked position of the quoin. In other forms of locking the vernier arrangement might be applied in other position than in rib C, as will be readily understood by a skilled mechanic. The vernier notches are shown as rectangular; but this is not essential, although such form is a convenient form to guide the eye in selecting an opening into which the locking-key will readily fit.

In Fig. 9 I show a convenient form of quoin in which the vernier effect is produced by different sizes of notch in each wedge-piece of

the quoin, the larger or deeper notches or teeth being toward the large end and smaller notches toward the small end of the wedge-piece. When the two pieces are put together, 5 the large notches on one will be opposite the smaller notches on the other wedge-piece, so that different sizes of opening are formed at the opposite ends of the quoin.

What I claim is—

10 1. In a printer's quoin a metallic wedge-piece provided with notches in the edge to afford a key-seat, as usual, said wedge having a rib at one edge, which rib has notches of unequal width, to afford unequally-spaced receptacles 15 for a locking-pin, substantially as described.

2. In a quoin, a plurality of wedge-pieces and means for sliding one on the other, of unequally-spaced notches arranged in proximity,

so that a number of key-spaces of different size are always accessible to the key, 20 and a key to enter one of the spaces formed by said notches.

3. In a quoin as described, two metallic wedge-sections having each guide-grooves and a longitudinal rib, both said ribs having 25 vernier or unequally-spaced notches, and a locking-key adapted to fit one pair of the notches while other notches form openings of unequal cross-section, all combined substantially as described. 30

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

WILLIAM G. SLAUSON.

Witnesses:

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