March 13, 1951 E. L. DAVIS 2,544,983

INTERLOCKING BUILDING SLAB

Filed Nov. 7, 1946

Fig. 1.

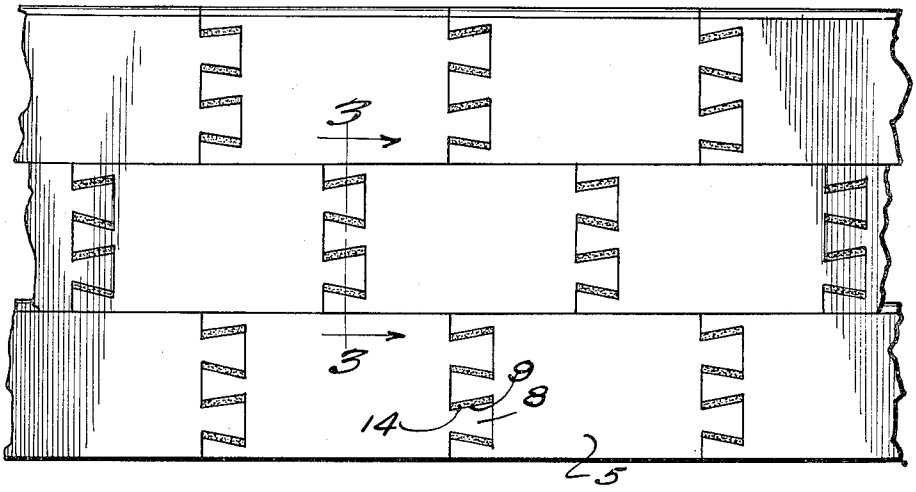


Fig. 2.

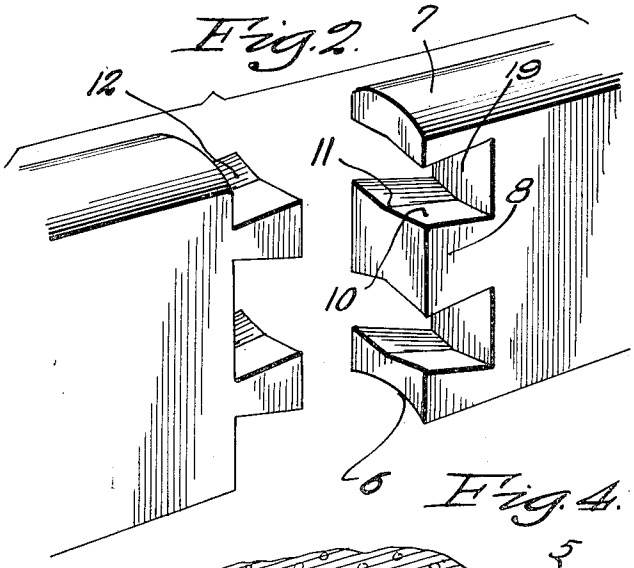


Fig. 3.

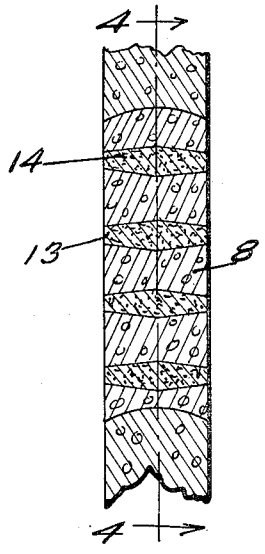
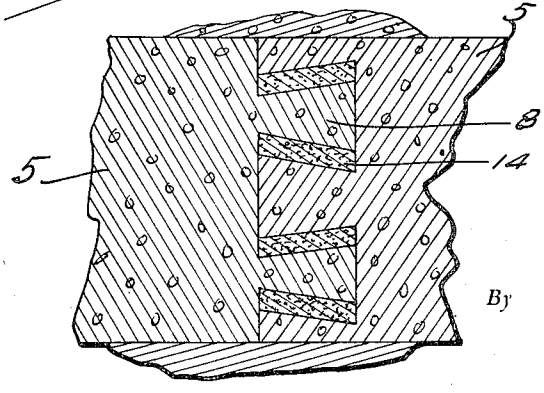


Fig. 4.



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INTERLOCKING BUILDING SLAB

Eugene L. Davis, Alloway, N. J.

Application November 7, 1946, Serial No. 708,319

1 Claim. (Cl. 72—38)

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The present invention relates to new and useful improvements in cement or concrete building slabs and more particularly to interlocking means between the slabs to secure the same in assembled relation.

An important object of the present invention is to provide interlocking means for building slabs used in the construction of walls for buildings and for other structural purposes.

More specifically the invention embodies the provision of interlocking dovetailed tongue and grooves at the meeting ends of the slabs and providing sufficient space between the tongue and grooves to permit the entrance of a bonding agent therebetween to form a key when the bonding agent becomes set whereby to firmly lock the ends of the slabs together.

A still further object is to provide a structural unit of this character of simple and practical construction, which is strong and durable, efficient and reliable in use and otherwise well adapted for purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a side elevational view of a wall section constructed of slabs embodying the present invention.

Figure 2 is a fragmentary group perspective view of the interlocking ends of a pair of the slabs.

Figure 3 is a fragmentary sectional view taken on a line 3—3 of Figure 1, and

Figure 4 is a sectional view taken on a line 4—4 of Figure 3.

Referring now to the drawing in detail wherein for the purpose of illustration I have disclosed a preferred embodiment of the invention the numeral 5 designates a cement or concrete building slab which may be used in the construction of walls or for other structural purposes.

One longitudinal edge of the slab is formed with the longitudinally extending channel 6 and the opposite longitudinal edge of the slab is convex transversely as shown at 7 to conformably seat in the channel 6 of an adjacent upper or lower slab when the slabs are laid in courses as shown in Figure 1.

The ends of the slabs are formed with interlocking dovetailed shaped tongues 8 and grooves 9, the tongues 8 at the end of one of the slabs being arranged for seating in the grooves 9 of an adjacent slab and the entrance at the outer edges of the grooves 9 are sufficiently wide to permit the insertion of the tongues 8 of the adjacent slab by an endwise sliding movement of the slabs toward each other.

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The opposed faces of the grooves 9 are inclined inwardly as indicated at 10 to provide longitudinally extending valleys at the centers of the grooves and the inner surfaces of the tongues 8 are likewise formed with correspondingly shaped valleys 12.

By providing the grooves 9 of an increased width the tongues 8 are loosely received in the grooves to form a mortar joint 13 between the opposed surfaces of the tongues and grooves, the mortar joint being of gradually increased thickness toward the center of the tongues and grooves as shown to advantage in Figure 3 of the drawing.

By filling the mortar joint 13 with mortar or other bonding agent 14 and permitting the mortar to harden a locking key is provided between the opposed faces of the dovetail tongues and grooves 8 and 9 and the slabs are thus securely held against separation.

In view of the foregoing description taken in conjunction with the accompanying drawings it is believed that a clear understanding of the device will be quite apparent to those skilled in this art. A more detailed description is accordingly deemed unnecessary.

It is to be understood, however, that even though there is herein shown and described a preferred embodiment of the invention the same is susceptible to certain changes fully comprehended by the spirit of the invention as herein described and the scope of the appended claim.

I claim:

An interlocking connection for wall units comprising dovetailed interlocking tenons at the meeting ends of a pair of the units, the opposed sides of said tenons being spaced from each other when in interlocking position, and the opposed sides of said tenons having longitudinal valleys at the centers thereof to form a chamber between adjacent tenons tapering toward opposite sides of a wall, and a bonding agent positioned in said chambers to form centrally enlarged locking keys between the tenons.

EUGENE L. DAVIS.

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