H. E. HARRIS.

SEPARABLE SQUARE.

APPLICATION FILED SEPT. 6, 1911.

1,107,516. Patented Aug. 18, 1914.

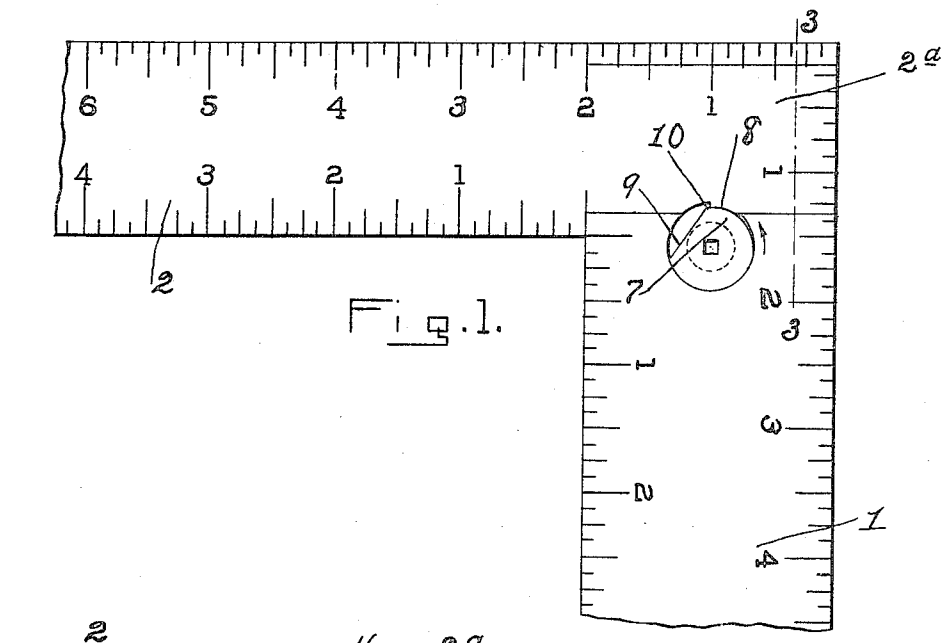


Fig. 1.

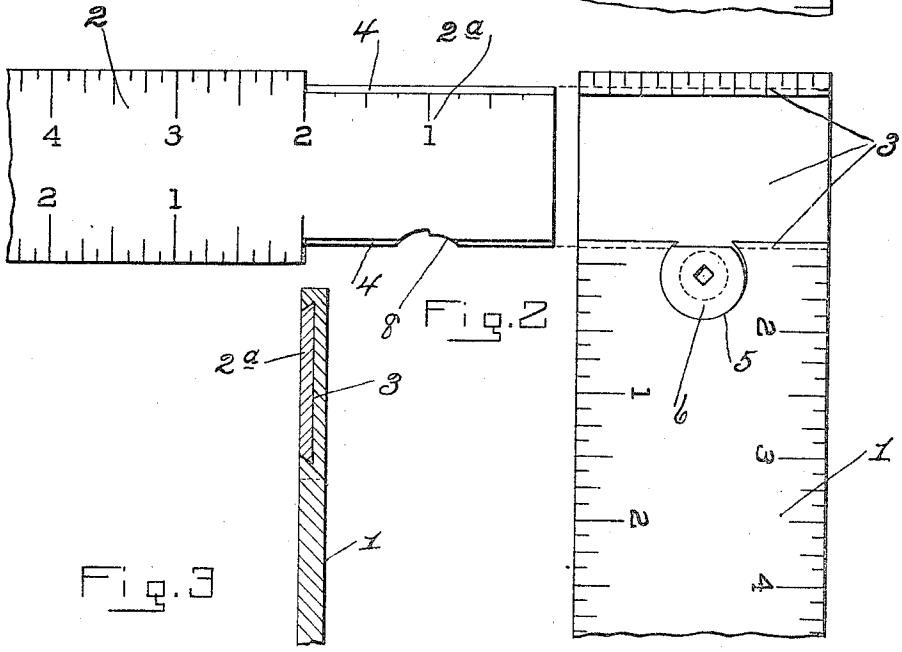


Fig. 2

Fig. 3

WITNESSES:

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HENRY E. HARRIS, OF SOUTH SHAFTSBURY, VERMONT, ASSIGNOR TO EAGLE SQUARE MANUFACTURING COMPANY, OF SOUTH SHAFTSBURY, VERMONT, A CORPORATION OF VERMONT.

SEPARABLE SQUARE.

1,107,516. Specification of Letters Patent. **Patented Aug. 18, 1914.**

Application filed September 6, 1911. Serial No. 647,910.

To all whom it may concern:

Be it known that I, HENRY E. HARRIS, a citizen of the United States, residing at South Shaftsbury, county of Bennington, and State of Vermont, have invented certain new and useful Improvements in Separable Squares, of which the following is a specification.

The invention relates to such improvements and consists of the novel construction and combination of parts hereinafter described and subsequently claimed.

Reference may be had to the accompanying drawings and the reference characters marked thereon, which form a part of this specification. Similar characters refer to similar parts in the several figures therein.

Figure 1 of the drawings is a plan view of a corner-portion of a separable square embodying my invention. Fig. 2 is a similar view showing the members of the square separated from each other. Fig. 3 is a vertical cross-section taken on the broken line 3—3 in Fig. 1.

The principal object of the invention is to securely lock together the members of a separable square by mechanism which can be readily locked or unlocked.

Other objects will appear in connection with the following description.

Referring to the drawings wherein the invention is shown in preferred form, 1, is the body-member and, 2, the tongue-member of my improved separable square. Near the corner end, the body-member is formed with an undercut open slideway, 3, extending transversely of the body-member and adapted to receive and fit the tang, 2^a, on the corner-end of the tongue-member, said tang having its side edges chamfered as shown at 4, to fit the undercut portion of the slideway. An opening, 5, is formed in the face of the body-member in communication with the slideway, 3; and a cam-disk, 6, is rotatively mounted in said opening, 5, in such a manner that its cam-surface, 7, can by rotation of said disk be projected into the slideway, 3. The tang, 2^a, of the tongue-member is formed with a seat, 8, adapted to be engaged by the cam-surface, 7, when the latter is projected into the slideway, 3. The cam-disk is thus adapted to engage the seat, 8, when rotated to cause its cam-surface, 7, to enter the slideway, 3, in the direction of a movement of withdrawal of the tongue-member from the slideway, 3. After the members have been assembled and locked together by means of the cam-disk, 6, any force tending to withdraw the tongue-member from its slideway serves only to cause a firmer engagement of the cam-surface, 7, with the seat, 8.

I have shown the cam-disk cut away to form a stop, 9, thereon and I have shown the tang, 2^a, formed with a stop or shoulder, 10, at the outer end of the seat, 8, in the path of the stop on the cam-disk, adapted to prevent the cam-surface on the disk from being forced into engagement with the seat, 8, by a reverse rotative movement of said disk. I thus render it impossible to lock the parts together by a movement of the cam-surface on the disk in the direction of the movement of the tongue-member in entering the slideway, 3^a, and thus make it impossible for the cam to be disturbed by any force tending to withdraw the tongue-member from the body-member.

The cam-disk may be rotatively mounted upon the body-member in any known manner.

It will be understood, of course, that the terms body-member and tongue-member are relative terms only, and that it is immaterial which of the members is provided with the slideway and which with the tang adapted to enter the slideway, and which bears the cam-disk. In either case, however, in the preferred form of the invention, the cam-surface will be adapted to engage its seat by a movement in a direction opposite that in which the cam-bearing member is moved to withdraw the tang from the slideway.

The seat, 8, is cut in beyond the chamfered edge-portion of the tang, forming a wall perpendicular to the plane of the square. The edge of the cam-disk, 6, and the edge-wall of the opening, 5, are also formed perpendicular to the plane of the square, and the disk so fits the opening, 5, that when rotated to locking position, it wedges bodily in between the seat, 8, and the edge-wall of the opening, 5, diametri-

cally opposite the seat, 8, and the entire wedging force is exerted upon the tang, 2^a, due to the perpendicularity of the edges of the cam-disk and the respective walls which it engages.

What I claim as new and desire to secure by Letters Patent is—

1. In a separable-square, and in combination, a body-member and a tongue-member, one of said members being provided with a transverse undercut open slideway and with an opening having an edge-wall perpendicular to the plane of the square, and the other member having a tang with chamfered edges adapted to enter and fit said slideway, said tang having a cam-seat perpendicular to the plane of the square extending inward beyond one of its chamfered edges, and a cam rotatively mounted within said opening having edges perpendicular to the plane of the square and adapted by rotative movement to be wedged bodily between said seat and the perpendicular wall of said opening on a line substantially perpendicular to said slideway.

2. In a separable-square, and in combination, a body-member and a tongue-member, one of said members being provided with a transverse slideway and the other member having a tang adapted to enter and fit said slideway, one of said members having a cam-seat and a shoulder at the end of said seat; and a cam rotatively mounted upon the other member and having a cam-surface adapted to engage said seat when moved in a direction opposite that in which the cam-bearing member is moved to withdraw said tang on said slideway, said cam being prevented by said shoulder from engaging said seat when rotated in the reverse direction.

In testimony whereof, I have hereunto set my hand this 31 day of August, 1911.

HENRY E. HARRIS.

Witnesses:

IRWIN MATTISON,

J. B. WILBUR, Jr.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."