

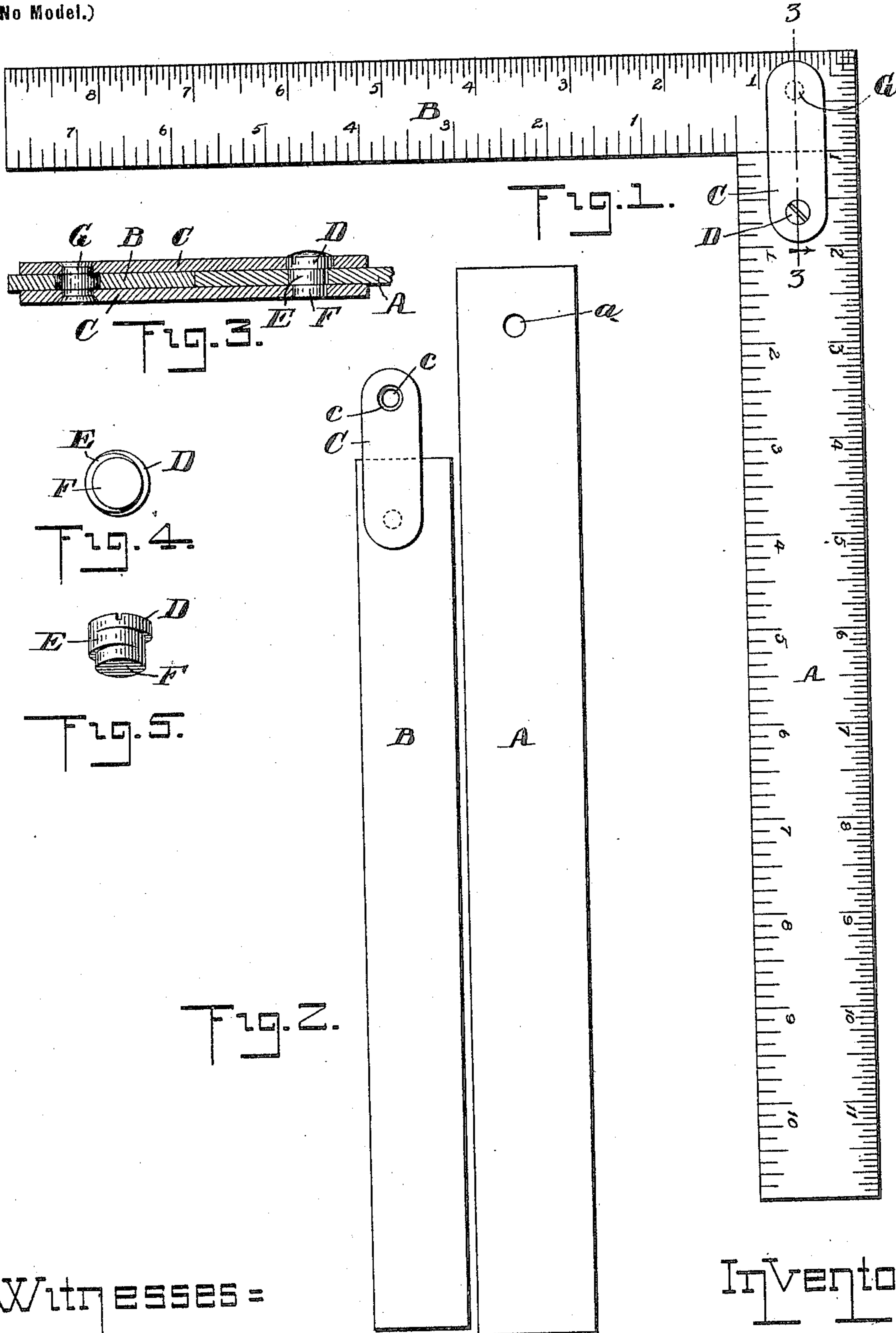
No. 680,815.

Patented Aug. 20, 1901.

L. S. STARRETT.
SQUARE.

(Application filed Dec. 31, 1900.)

(No Model.)



Witnesses =
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UNITED STATES PATENT OFFICE.

LARROY S. STARRETT, OF ATHOL, MASSACHUSETTS.

SQUARE.

SPECIFICATION forming part of Letters Patent No. 680,815, dated August 20, 1901.

Application filed December 31, 1900. Serial No. 41,571. (No model.)

To all whom it may concern:

Be it known that I, LARROY S. STARRETT, of Athol, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Squares, of which the following is a specification.

The object of this invention is not only to cheapen the process of making a trisquare by using two detachable straight edges or rules, which are more easily made than one formed at a right angle in one piece, but also to provide for the use of mechanics a folding steel or knockdown square, which is vastly more compact in the tool-chest than the ordinary rigid squares. By my invention the two blades, usually formed integral and standing permanently at right angles to each other, are so joined together that they may be disconnected and laid flat one upon the other for compact storage, and yet when required for use they may be quickly united by a single stud, holding them exactly perpendicular and with an exceedingly stiff joint. In the best form of my improved square the edge of the shorter blade is held in firm contact with the end of the longer one by means of two projecting plates or links secured on opposite sides of the shorter blade and extending each side of the longer one over the joint where the two blades meet to a perforation in the longer member, which registers with perforations in said links and by an eccentric stud occupying such perforations and nicked endwise, like a screw, to provide for its partial rotation. The ends of said stud are cylindrical and fill the perforations of different sizes in said links, while the intermediate eccentric portion fills the perforation in the longer blade, so that partial rotation by means of a screw-driver applied to the nicked head draws the blades into close contact or frees them. When loosened, the stud may be removed and the blades disconnected. These connecting-links are preferably pivoted to the shorter blade, so that they can swing into parallelism with it and not protrude at all when the tool is to be folded; but they may be formed as rigid plates extending permanently from the end of said blade and have the edge of the longer one secured thereto by said eccentric stud. The links may project from the longer blade, if preferred.

In the drawings, Figure 1 is a plan of my improved square, showing the parts assembled for use. Fig. 2 represents the two blades detached. Fig. 3 is an enlarged section of the tool on line 3 3, Fig. 1. Figs. 4 and 5 are end and perspective views of the eccentric stud enlarged.

A and B represent, respectively, the long and short blades of my jointed square, made of equal thickness and preferably of thin steel and graduated along each margin of both sides. The edges are parallel and the ends at right angles thereto, as usual.

C C represent two flat plates or links secured on opposite sides of one blade, preferably the shorter one, B, at one end, and projecting each side of the other blade at its end. Perforations *c* are formed through the free end of said links, registering with a perforation *a* through the blade which they embrace. Through these perforations, which are of different sizes, the eccentric stud D E F passes, its nicked head occupying the larger and its tip F the smaller perforation in the links, while its intermediate eccentric portion E fills the aperture *a* in the blade A. These parts are so proportioned and the perforations so located that less than half a revolution of the stud D E F will tighten the blades into a rigid union, as in Figs. 1 and 3, or loosen them, so that the stud may drop out and the parts be detached for folding, as in Figs. 2, 4, and 5.

The links are shown in Figs. 1 and 3 as connected by pivots G to and extending transversely from the blade B, which is the preferable construction; but they may extend rigidly beyond the end of said blade in the position shown in Fig. 2. The pivot G is preferably enlarged centrally, as shown in Fig. 3. The edge graduation of one blade may be continued across the end of the other, as indicated in Fig. 1.

I claim as my invention—

1. In a separable square, the detachable blades A B in combination with the links C C projecting from one blade and having terminal perforations *c* and with the eccentric stud D E F occupying the perforations in said links and filling the aperture in the other blade, interposed between them, substantially as set forth.

2. The improved square herein described, comprising the blades A B, the links C C pivoted to and projecting from one of said blades, and the connecting-stud having a cylindrical
5 head and tip occupying perforations in said links, and an intermediate eccentric portion filling a perforation in the other blade, the parts being so located as to be tightened, and

loosened for separation, by partial rotation of such stud, substantially as set forth. 10

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

LARROY S. STARRETT.

Witnesses:

FRANK E. WING,
E. P. BARRUS.