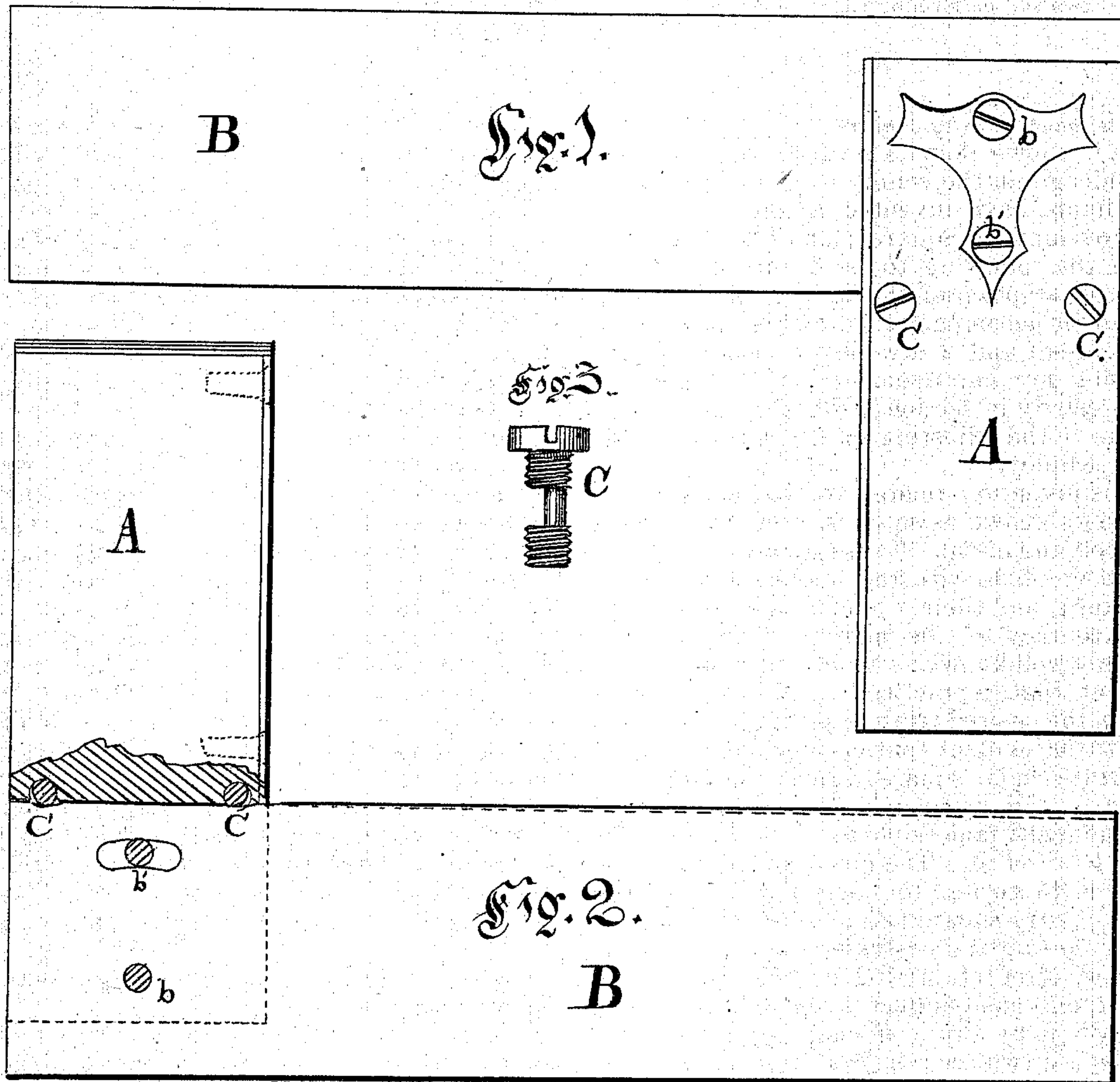


C. A. SCHAEFER.
Adjustable Try-Squares.

No. 139,821.

Patented June 10, 1873.



Witnesses
C. J. Tasker.
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UNITED STATES PATENT OFFICE.

CHARLES A. SCHAEFER, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN ADJUSTABLE TRY-SQUARES.

Specification forming part of Letters Patent No. **139,821**, dated June 10, 1873; application filed April 12, 1873.

To all whom it may concern:

Be it known that I, CHARLES A. SHAEFER, of Chicago, in the county of Cook, and State of Illinois, have invented a new and useful Improvement in Squares; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figures 1 and 2 are elevations of squares showing my improvement; the latter figure being partly in section. Fig. 3 is an elevation of one of the adjusting-screws, such as I prefer to employ.

This invention relates to that class of implements known as squares, used by artisans in wood and metal. These squares have hitherto been made with the blade set rigidly in the stock, and their whole value consists in the accuracy of the manufacturer, and it is not only well known as a fact, but must appear evident, that in practice, it will be difficult to obtain the desired truth of setting. It appears also to be evident that accident may destroy the truth of a square which originally was accurate, and when once so destroyed it will be practically impossible for an ordinary workman to reset it. The object of my improvement is to correct this defect by making the blade of a try-square adjustable within narrow limits, so that the possessor may not only correct any error of setting on the part of the maker, but may readjust the blade if disturbed in position by any accident; and it therefore consists in two eccentric or cam screws passing through the stock and applied to bear against the edge of the blade or toward each side of the pivot-pin, upon which said blade may move, so that by properly turning said eccentrics, the blade may be caused slightly to change its angle in respect to the stock.

That others may fully understand my invention I will particularly describe it.

A is the stock of an ordinary try-square, and B is the blade of the same, which is required to be set accurately at right angles to said stock. *b b'* are the two ordinary fastening pins, sometimes rivets, but generally screws. The pin *b* forms a pivot upon which the blade B may move, and the pin *b'*, therefore, is provided with a slightly elongated hole or slot, so that said pin *b'* serves as a re-enforce for the stock, but does not hold the blade in position. Immediately below the edge of the blade B, I insert two pins or screws C C, through the stock, and that part of each of said pins which comes opposite the edge of the blade I make eccentric, as shown in Fig. 3. When the blade is in place, and the pin *b* and eccentrics C C, are in their seats, then said blade will have three points of support, and the turning around of said eccentrics will shift the relative positions of said points, and cause the blade to be correspondingly shifted; and it will thus be an easy matter for any skilful person to bring his try-square to a perfect adjustment.

It is obvious that the eccentrics C C, may be placed through holes made in the blade B, or that instead of eccentrics, wedges or conical screws may be employed without in any way changing the results or nature of this invention.

Having described my invention, what I claim as new, is—

The blade B, hung upon the pin *b* as a permanent center, and adjusted by the two eccentric pins C C, as set forth.

CHARLES A. SCHAEFER.

Witnesses:

WILLIAM WOLF,
HENRY FLEISCHHAUER.