

H. FAIRBANKS & I. J. ROBINSON.

Carpenters' Bevels.

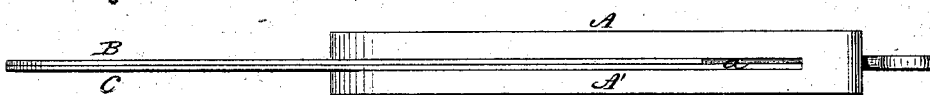
No. 136,714.

Patented March 11, 1873.

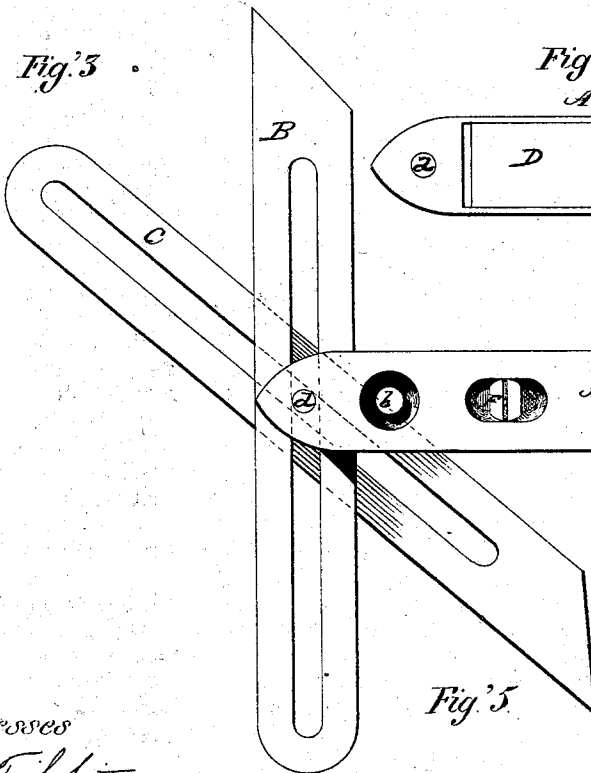
Fig' 1



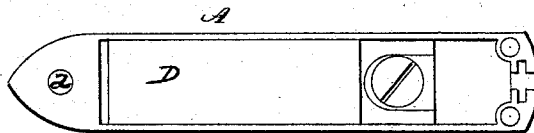
Fig' 2



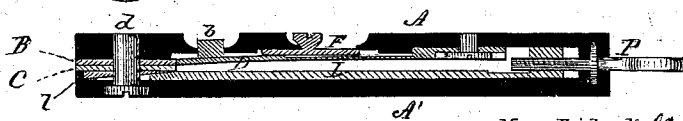
Fig' 3



Fig' 4



Fig' 5



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UNITED STATES PATENT OFFICE.

HENRY FAIRBANKS AND ISAAH J. ROBINSON, OF ST. JOHNSBURY, VT.

IMPROVEMENT IN CARPENTERS' BEVELS.

Specification forming part of Letters Patent No. 136,714, dated March 11, 1873.

To all whom it may concern:

Be it known that we, HENRY FAIRBANKS and ISAAH J. ROBINSON, of St. Johnsbury, in the county of Caledonia and State of Vermont, have invented a new Improvement in Bevel-Squares; and we do hereby declare the following, when taken in connection with the accompanying drawing and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawing constitutes part of this specification, and represents, in—

Figure 1, a side view; Fig. 2, an edge view; Fig. 3, a side view illustrating the operation; Fig. 4, an inside view of one of the parts of the handle; and in Fig. 5, a longitudinal central section through the handle, illustrating the blades as turned at right angles.

This invention relates to an improvement in what are commonly termed bevel-squares, the object being chiefly to produce an instrument with two tongues, one of which may be set at right angles, while the other may be turned to any desired angle; and it consists in combining in a single handle two adjustable and independent tongues, one of which may be set at right angles while the other is free to be turned to any desired angle.

A is the handle, usually formed in two parts, A and A', the slit *a* between the two being formed to receive the two blades B C, which, by preference, are made alike, and slitted for adjustment, and made adjustable around a pivot, *d*. One of the blades here represented, as B, is provided with means for being set at right or other defined angles; and this is here done by a plate, D, arranged within the portion A of the handle, as seen in Figs. 4 and 5, which said plate is elastic, so that when free it will set into a recess, the handle, as in Fig. 4, leaving the slit clear, so that both blades, or either of them, may be freely turned. When the blade B is set at right angles the blade D is depressed by a projection, *b*, extending through the side, its end being formed so as to set hard against the blade B, as seen in Fig. 5, and hold it firmly at right angles to the handle. This plate D is locked in such position

by a slide, F, operated through a slot in the handle, as seen in Fig. 5; and when it is desired to release the said angular blade, withdraw the slide, and the plate D springs away into the handle, leaving it free, as before described.

It will be readily seen that if other than a right angle is required for the blade the end of the plate D must be formed at that angle, the adjustment of that blade being predetermined, and not variable. While one blade is thus locked in an angular position the other is left free to be turned to any angle and be there set. The advantage of thus combining two instruments in one will be too apparent to require mention here. When the other blade has been set to the required angle, then a slide or bar, L, (see Fig. 5,) having its end inclined, is forced beneath a correspondingly inclined washer, *l*, at the pivot, by means of a set-screw, P, or otherwise, in substantially the same manner as in a patent granted to Isaiah J. Robinson, June 14, 1870, one of the applicants for this invention, with this difference, that in that patent the incline upon which the slide rises is formed in the handle, the slide bearing and moving directly on the surface of the blade, which is prevented by the introduction of the inclined washer *l* and the slide, making the bearing or force by which the blade is secured more direct than in that patent.

This device will hold both blades when properly adjusted. It is therefore not essential that the plate D should remain against the blade B any longer than to set the blade. The slide F, therefore, is not essential when there is other setting device, but is desirable.

We claim as our invention—

1. The two blades B C, arranged in the same slit in the handle, and provided with means for clamping both, combined with the plate D acting as an independent clamp for one blade, the whole constructed and operating substantially as specified.

2. In a bevel-square, the arrangement of the elastic plate D in the handle, the said plate rigidly attached to the handle at its lower end, its upper end so as to be set

down to hold the blade of the square at the angle defined by the end of the said plate, or returned into the handle to leave the blade free for adjustment to other angles, substantially in the manner described.

3. In combination with the subject-matter of the second clause of claim, the slide F or equivalent for setting the plate D in a posi-

tion to hold the blade B, substantially as set forth.

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