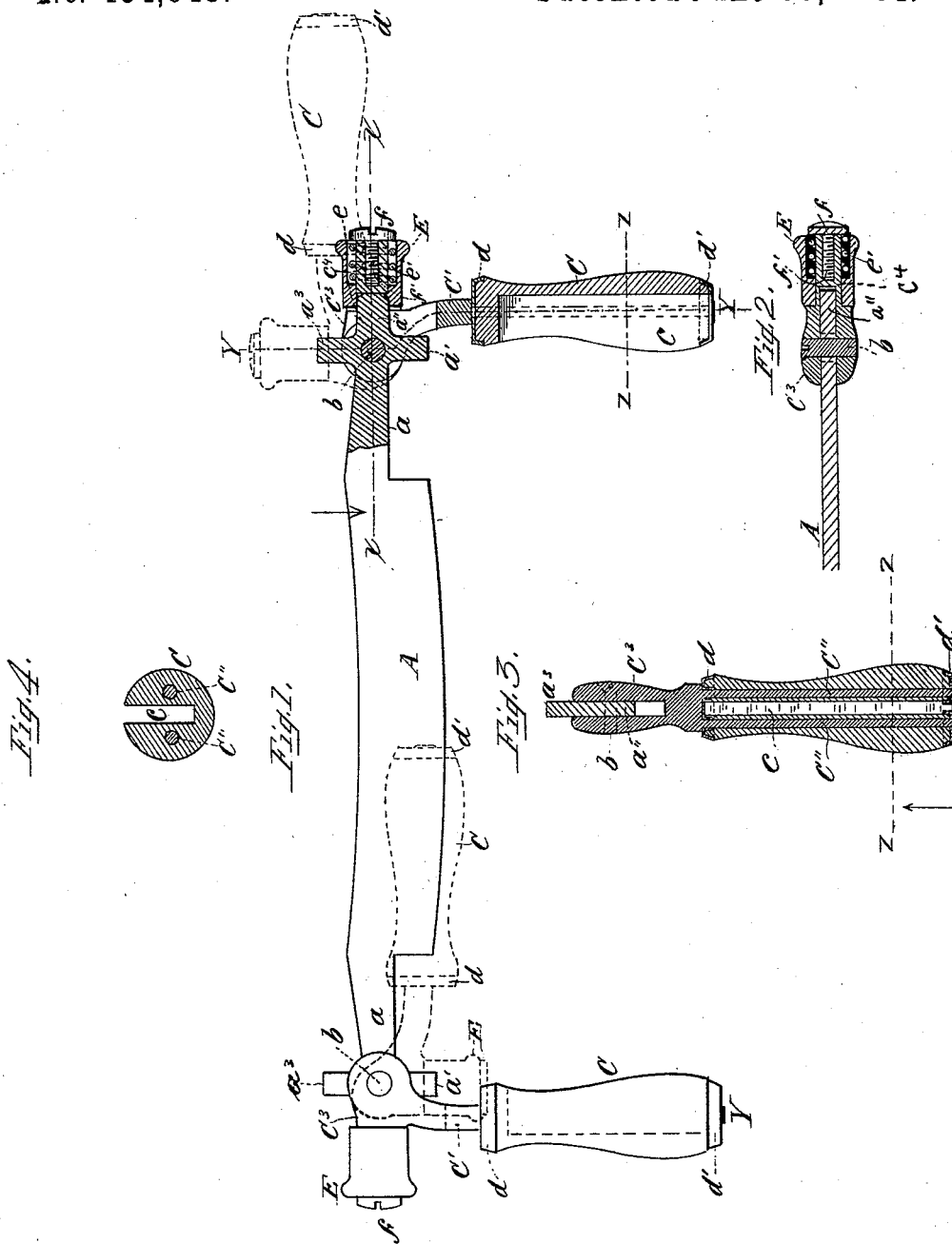


(No Model.)

J. S. CANTELO.
DRAWING KNIFE.

No. 454,848.

Patented June 30, 1891.



Witnesses.
W. J. Jackson.
Geo. W. White.

Inventor.
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UNITED STATES PATENT OFFICE.

JOHN S. CANTELO, OF BOSTON, MASSACHUSETTS.

DRAWING-KNIFE.

SPECIFICATION forming part of Letters Patent No. 454,848, dated June 30, 1891.

Application filed April 14, 1890. Serial No. 347,744. (No model.)

To all whom it may concern:

Be it known that I, JOHN S. CANTELO, a citizen of the United States, and a resident of Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Drawing-Knives, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention relates to improvements on that kind of drawing-knives on which the handles are adjustable relative to the blade; and this my invention is an improvement on the patent granted to me December 18, 1883, No. 290,396, for drawing-knife, and it is carried out as follows, reference being had to the accompanying drawings, wherein—

Figure 1 represents a side elevation of the invention, showing one end of the blade and its pivoted handle in section. Fig. 2 represents a longitudinal section on the line X X shown in Fig. 1. Fig. 3 represents a section on the broken line Y Y shown in Fig. 1; and Fig. 4 represents a cross-section on the line Z Z, also shown in Fig. 1.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

A represents the blade as usual, having at its ends the shanks or arms *a a*, which are perforated to receive the screws or pins *b b* to which the handles are pivoted. The said shanks are each provided, preferably, with three locking projections *a'*, *a''*, and *a³*, as shown in Fig. 1. The projections *a' a'* serve to hold the handles in a closed position upon the blade A, as shown in dotted lines at the left end of Fig. 1. The projections *a'' a''* serve to hold the handles locked to the blade-shanks at or about a right angle thereto, as shown in full lines in said Fig. 1, and the projections *a³ a³* serve to hold the handles locked to said blade-shanks in or about a line with the blade, as shown in dotted lines at the right end of Fig. 1. Each handle is composed of a wooden part C, having on one side a longitudinal groove *c*, adapted to receive the blade A when folded upon it, as shown in dotted lines at the left end of Fig. 1.

To each wooden handle C is secured the metallic hinge-piece C', having each two parallel shanks C'' C'' passing through longitudinal perforations in the handle C and

through perforated capped top and bottom ferrules *d d'*, substantially as shown and described in my above-mentioned Letters Patent. The lower ends of the bifurcated shanks C'' C'' are riveted or otherwise secured to the bottom ferrule *d'*, as shown in Fig. 3. The upper end or head of the hinge-piece C' is forked, as shown at C³ in Figs. 1, 2, and 3, and is pivoted to the shank *a* by means of the pin, screw, or rivet *b*.

In one piece with each forked head C³ is made a preferably cylindrical projection C⁴, extending at or about a right angle to the hinge-piece C' and its handle C, as shown in Fig. 1, and in connection with it and the locking projections *a' a'' a³*, I use a spring-pressed locking device, preferably constructed as follows: On such projection C⁴ is longitudinally adjustable a sleeve E, having an internal annular space or chamber *e*, in which is located a coiled spring *e'*, the inner end of which rests against the bottom of the chamber *e*, and having its outer end pressing, preferably, against the head *f* of the screw *f'*, that is screwed into the end of the hinge-piece projection C⁴, as shown in Fig. 2.

Instead of the headed screw *f f'*, a pin may be passed through a transverse perforation in the outer end of the projection C⁴ without departing from the essence of my invention. The spring *e'* causes the sleeve E to be forced toward the fulcrum of the pivoted handle, and in so doing causes the handle projection C⁴ to be locked to that one of the blade projections *a*, *a''*, or *a³* which for the time being is in a line with it, as shown in Fig. 1. In changing the positions of the handles relative to the blade it is only necessary to move the sleeves E outward sufficiently to disengage them from the blade projections to which they were locked, and by holding each of such sleeves in its outer position the handles may be swung to the various positions shown in full and dotted lines in Fig. 1 and locked in such positions simply by releasing the hold on the spring-pressed sleeves E E.

The invention is very simple in its construction and operation, and by its use the handles may be locked and folded upon the blade or secured to the latter in or about a line with it or at or about right angles to the same, thus inclosing and preventing the cutting-edge of

the blade from injury when the device is not in use and enabling the blade to be used with the handles in the positions as above mentioned.

5 Having thus fully described the nature, construction, and operation of my invention, I wish to secure by Letters Patent, and claim—

10 1. The blade A, having each of its ends provided with locking projections, and a handle pivoted thereto having a locking projection, combined with a spring-pressed sleeve adapted to hold the handle locked to the blade in or about a line and at or about a right angle thereto, substantially as and for the purpose
15 set forth.

2. The blade A, having each of its ends provided with locking projections, and a handle pivoted thereto having a locking projection, combined with a spring-pressed sleeve adapted to hold the handle locked to the blade in
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a closed position in or about a line and at or about a right angle thereto, substantially as and for the purpose set forth.

3. The blade A, having at each of its ends the locking projections a' , a'' , and a^3 , and the 25 bifurcated handle-pieces C' C^3 , pivoted to the blade ends and provided each with a pair of shanks C'' C'' , secured to the slotted handles C, combined with the locking projection C^4 on such bifurcated handle-piece, and a spring-pressed locking-sleeve E, substantially as and
30 for the purpose set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 7th day of April, A. D. 1890. 35

JOHN S. CANTELO.

Witnesses:

ALBAN ANDRÉN,
CHARLES S. BARKER.