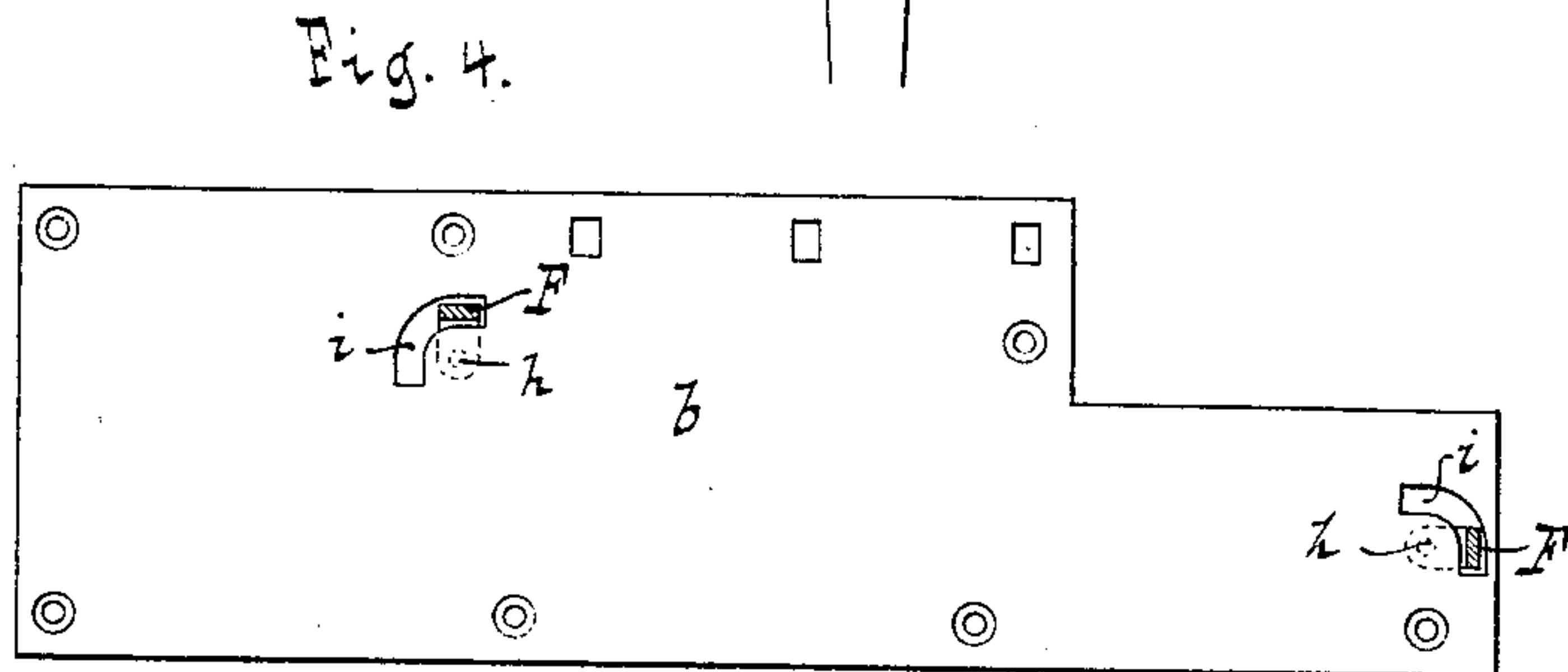
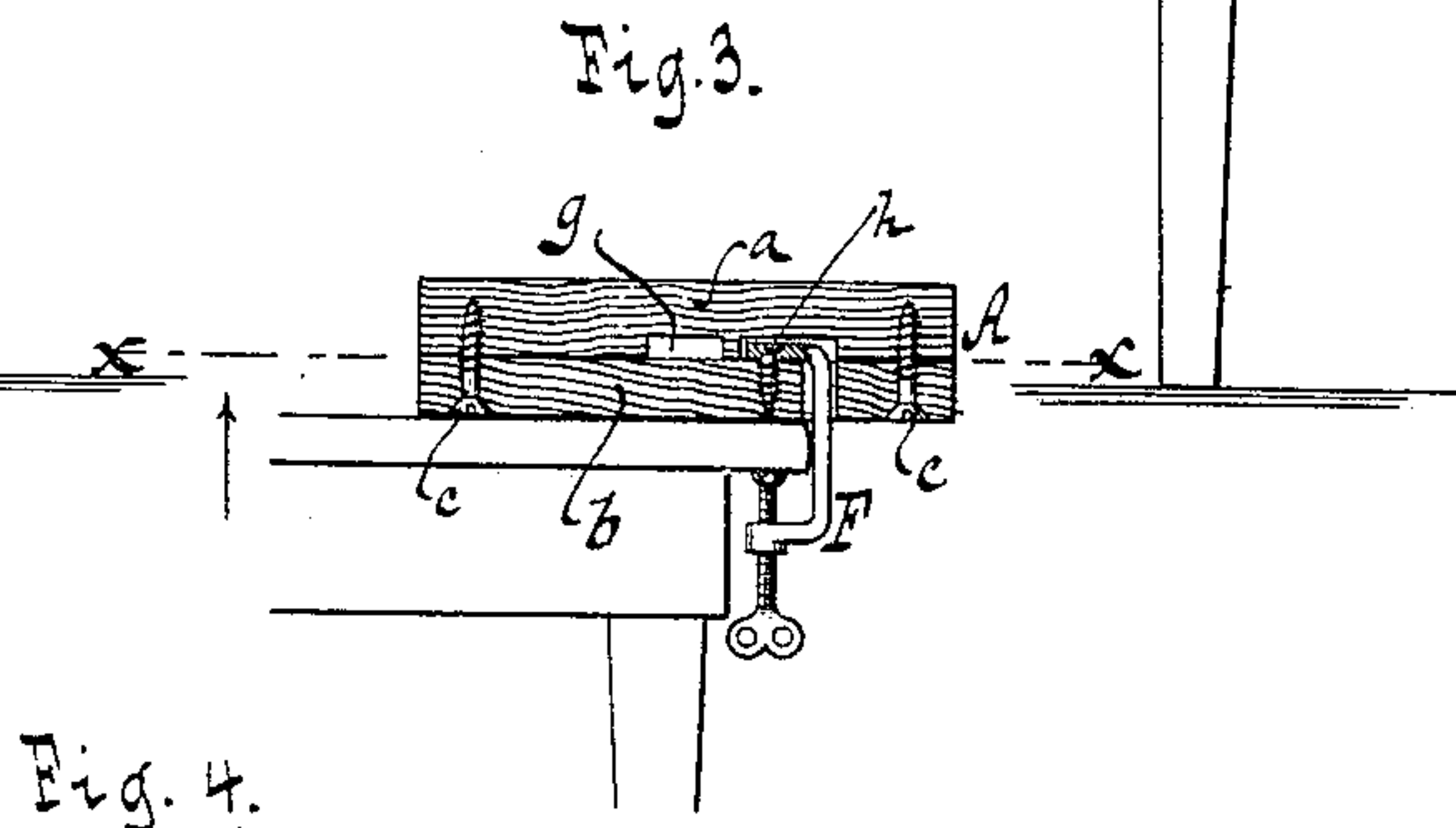
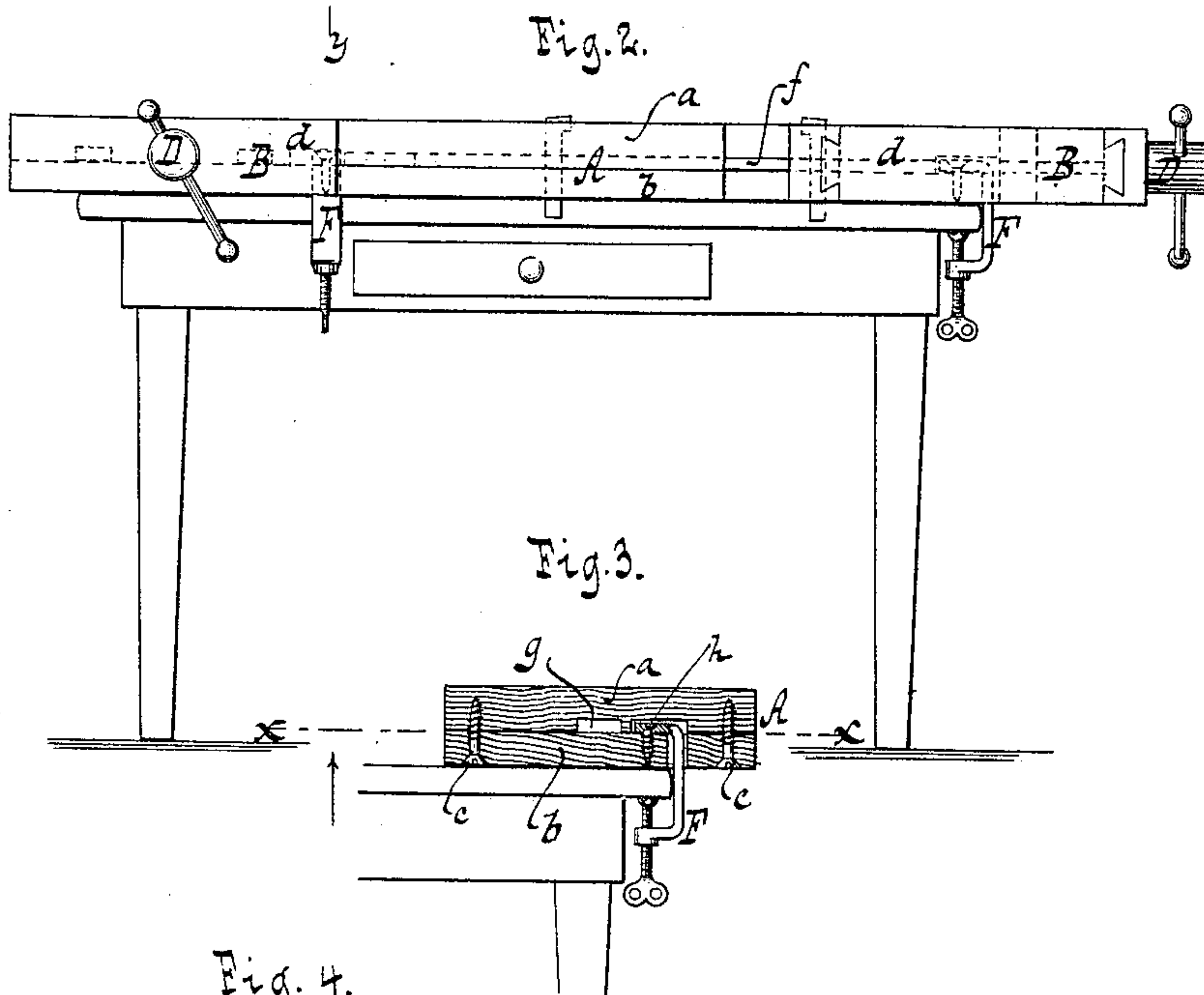
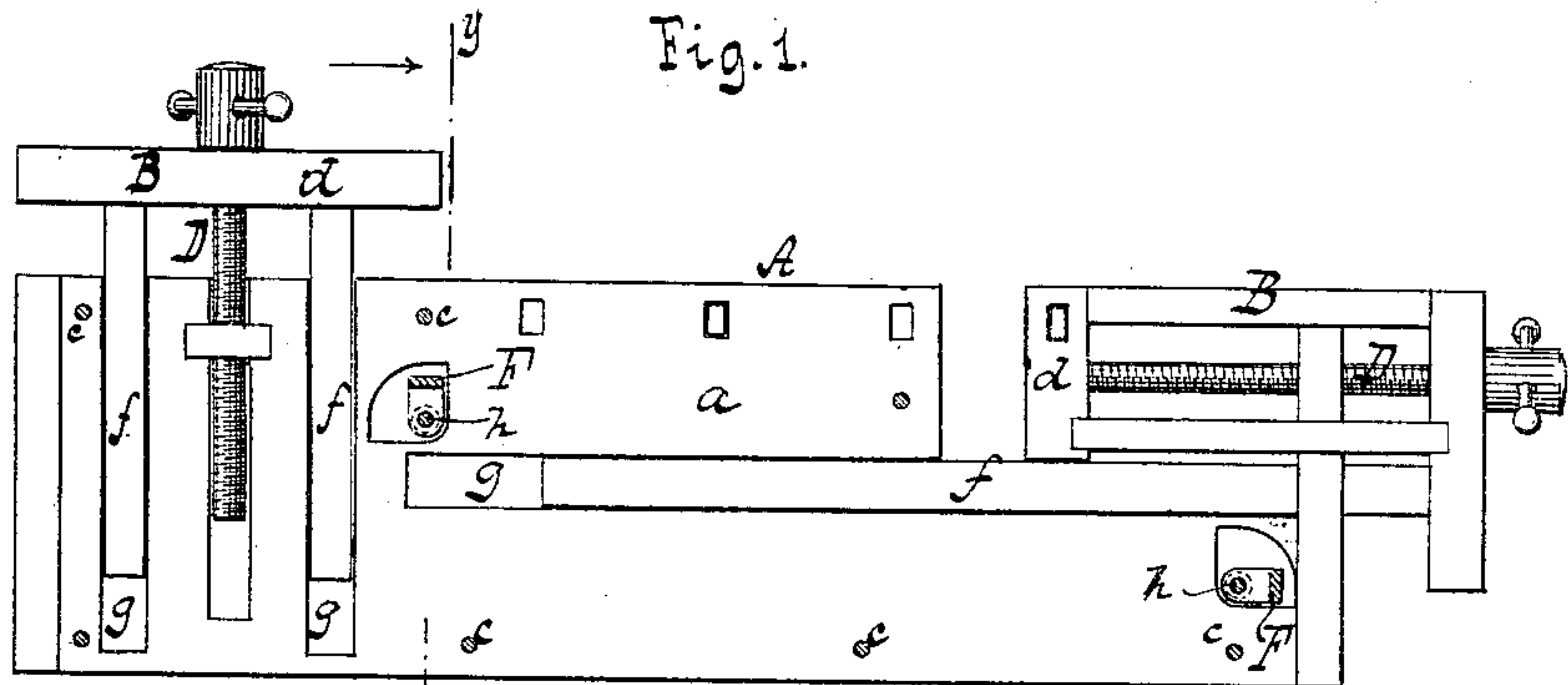


(No Model.)

E. ENGE.  
WORK BENCH.

No. 350,819.

Patented Oct. 12, 1886.



WITNESSES:  
*Otto Hufelaud*  
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# UNITED STATES PATENT OFFICE.

ERNST ENGE, OF NEW YORK, N. Y.

## WORK-BENCH.

SPECIFICATION forming part of Letters Patent No. 350,819, dated October 12, 1886.

Application filed June 10, 1886. Serial No. 204,772. (No model.)

*To all whom it may concern:*

Be it known that I, ERNST ENGE, a citizen of the United States, residing at New York, in the county and State of New York, have  
5 invented new and useful Improvements in Work-Benches, of which the following is a specification.

This invention relates to that class of work-benches generally used by carpenters and cabinet-makers; and it consists in certain novel features of construction, fully pointed out in the following specification and claims, and illustrated in the accompanying drawings, in which—

15 Figure 1 represents a horizontal section on the line *x x*, Fig. 3, looking in the direction of the arrow. Fig. 2 is a front elevation showing my bench secured to a table. Fig. 3 is a cross-section on the line *y y*, Fig. 1. Fig. 4 is a plan  
20 view of the bottom section of the bench.

Similar letters indicate corresponding parts.

In the drawings, the letter A designates the body of my work-bench, which is composed of two sections, the upper or main section, *a*, and  
25 the bottom section, *b*, which is secured to the main section by screws *c*. At each end of the bench are provided the necessary bench-vises, B, operated by screws D, by means of which the work is clamped between the movable vise-  
30 heads *d* and the body of the bench, A. These movable vise-heads are each provided with guide-pieces *f*, which fit in guide-grooves *g*, cut into the upper or main section, *a*, of my bench in such a way that the under surfaces of  
35 the guide-pieces *f* are flush with the under surface of the main section *a*. The bottom section, *b*, is then secured to the upper section, *a*, as above described, thereby producing a work-bench smooth on both sides, the work-  
40 ing parts of which are entirely protected from dust or shavings. In the old form of bench, the under side of which consists of an open frame, it was necessary to provide legs especially fitted to this frame, as the construction  
45 of that form of bench would not permit its being secured to an ordinary table.

One of the objects of my invention is to overcome that difficulty, and with the smooth under side of my bench, with its inclosed work-  
50 ing parts, my bench can either be provided with legs in the old way or laid on a table or

on a pair of horses—an advantage which will be self-evident. To secure the bench to the table or horses above mentioned, I provide  
55 clamps F, which turn on pivots *h*, and project from the under side of the bench. I secure these clamps to the upper surface of the bottom section, *b*, in which are formed circular slots *i*, through which the clamps pass. I prefer this method of fastening the clamps, as it  
60 leaves the bottom free and smooth; but it is obvious that they may also be secured in recesses cut into the bottom section for that purpose. The purpose of pivoting these clamps is to permit either or both of them to act as a  
65 stop, as shown in Figs. 2 and 3, in which one of the clamps passes over the front edge of the table and the other over one of the side edges, the former holding the bench in position  
70 against any force that would tend to push it sidewise, while the latter serves to hold it in position against an endwise movement.

Heretofore a work-bench has been composed of a table-top mounted on legs, and a vise-head having guide-arms working in guide-  
75 holes in one of the end traverses of the table-top. An ironing-board has also been pivoted to a circular plate carrying rigidly-attached clamps and feet for connecting the board with  
80 an ordinary table, so that said board can swing around to any desired position. Such features, however, do not constitute my invention, and are not claimed by me.

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

1. A work-bench consisting of two horizontal upper and lower sections, *a* and *b*, joined together one upon the other, and the section *a* provided with guide-grooves *g*, a vise-head, *d*,  
85 having attached guide-pieces *f*, fitting said guide-grooves, means for operating the vise-head, and clamps connected with the lower bench-section for detachably connecting the bench in a fixed position to the edge of a table,  
90 substantially as described.

2. A work-bench consisting of two horizontal sections, *a* and *b*, joined together one upon the other, and the section *a* provided in its inner face with guide-grooves *g*, a vise-head, *d*,  
95 having attached guide-pieces *f*, fitting said grooves, with their under surfaces flush with the inner surface of the grooved section and  
100



bearing against the inner surface of the other section, and means for operating the vise-head, substantially as described.

3. A work-bench consisting of the two horizontal sections *a* and *b*, joined together one upon the other, and the section *b* provided with slots *i*, and the clamps *F*, extending through the said slots and pivoted at their inner ends to the inner surface of said slotted section, said clamps serving to clamp the bench in a fixed position directly upon a table, and as stops to prevent endwise and sidewise movements of the bench, substantially as described.

4. In a work-bench, the combination, with the main section *a*, vise-head *d*, guide-pieces *f*,

projecting from said vise-head, guide-grooves *g*, formed in said main section, the bottom section, *b*, and means for operating the vises, of the clamps *F*, secured to the inner surface of said bottom section, the slots *i*, for passage of said clamps, and a pivotal connection between said clamps and the bottom section, substantially as described.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

ERNST ENGE. [L. S.]

Witnesses:

OTTO HUFELAND,  
W. HAUFF.