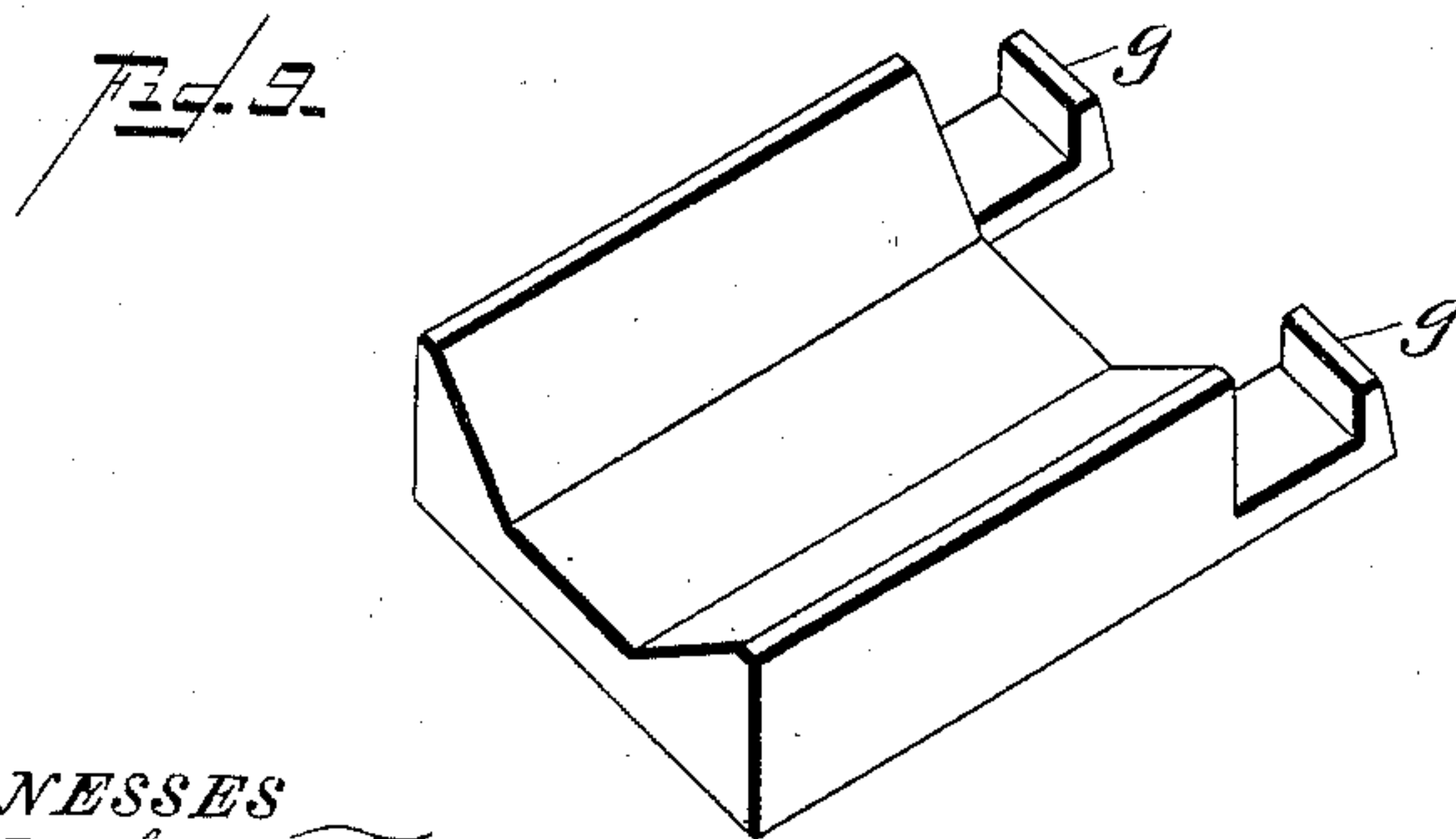
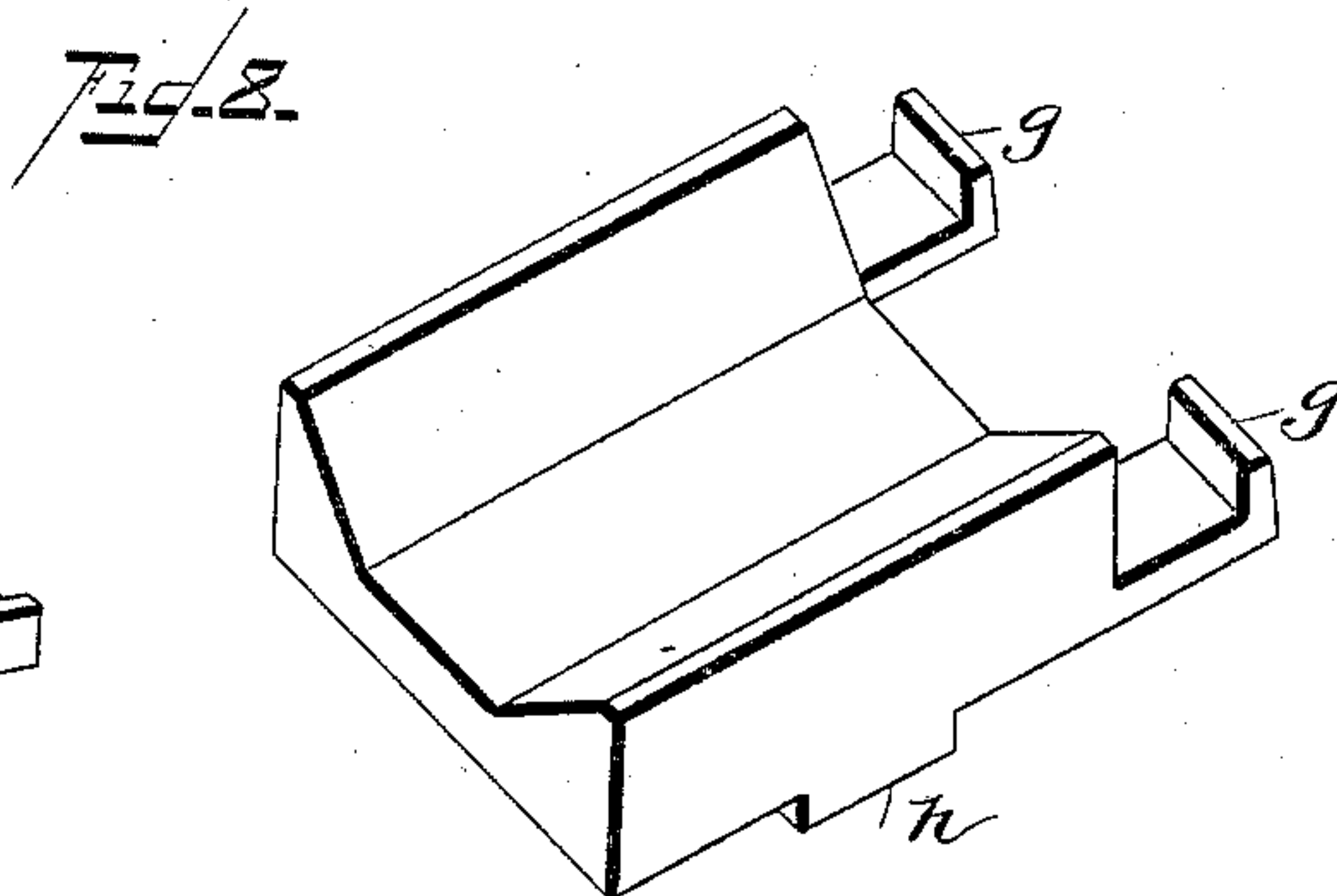
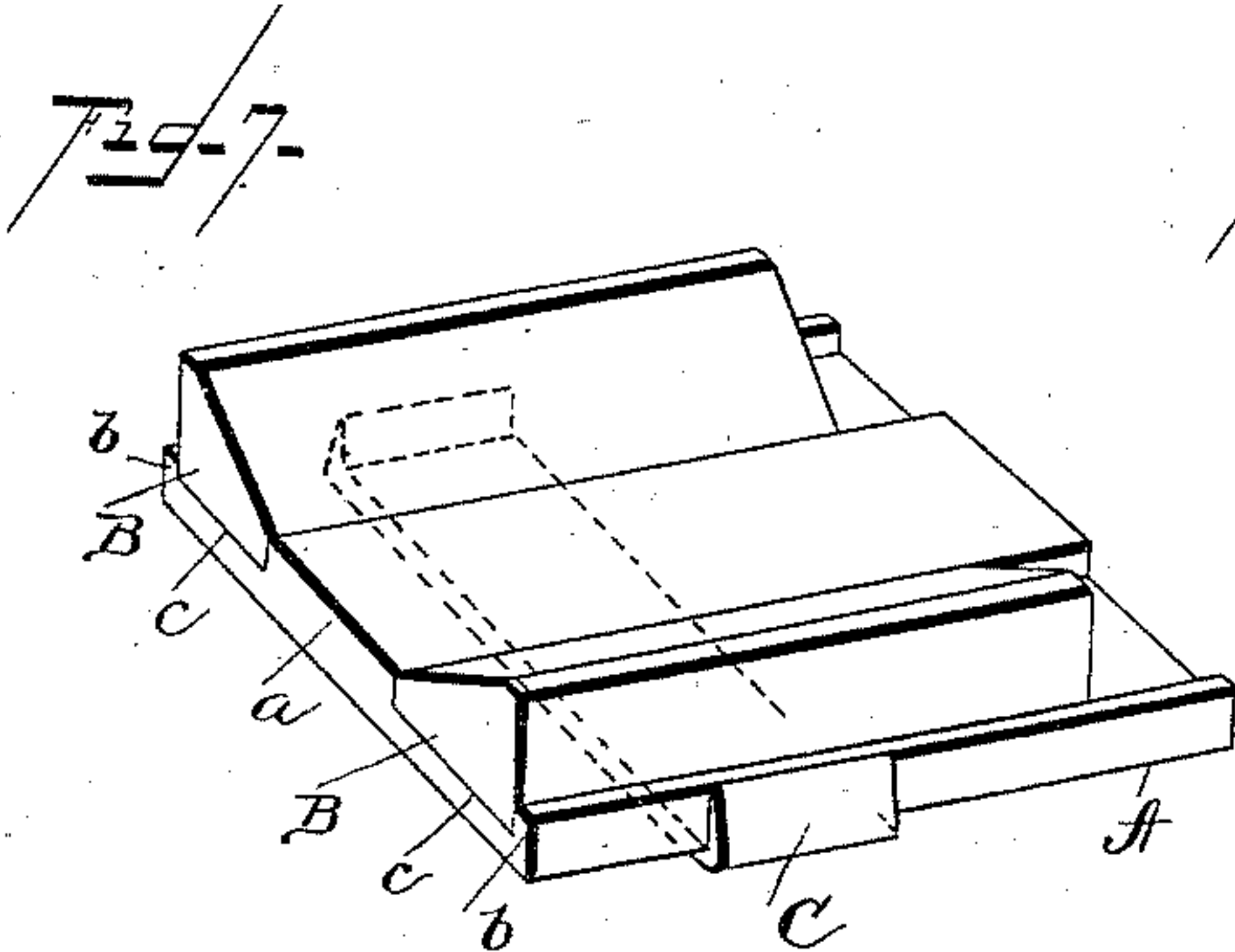
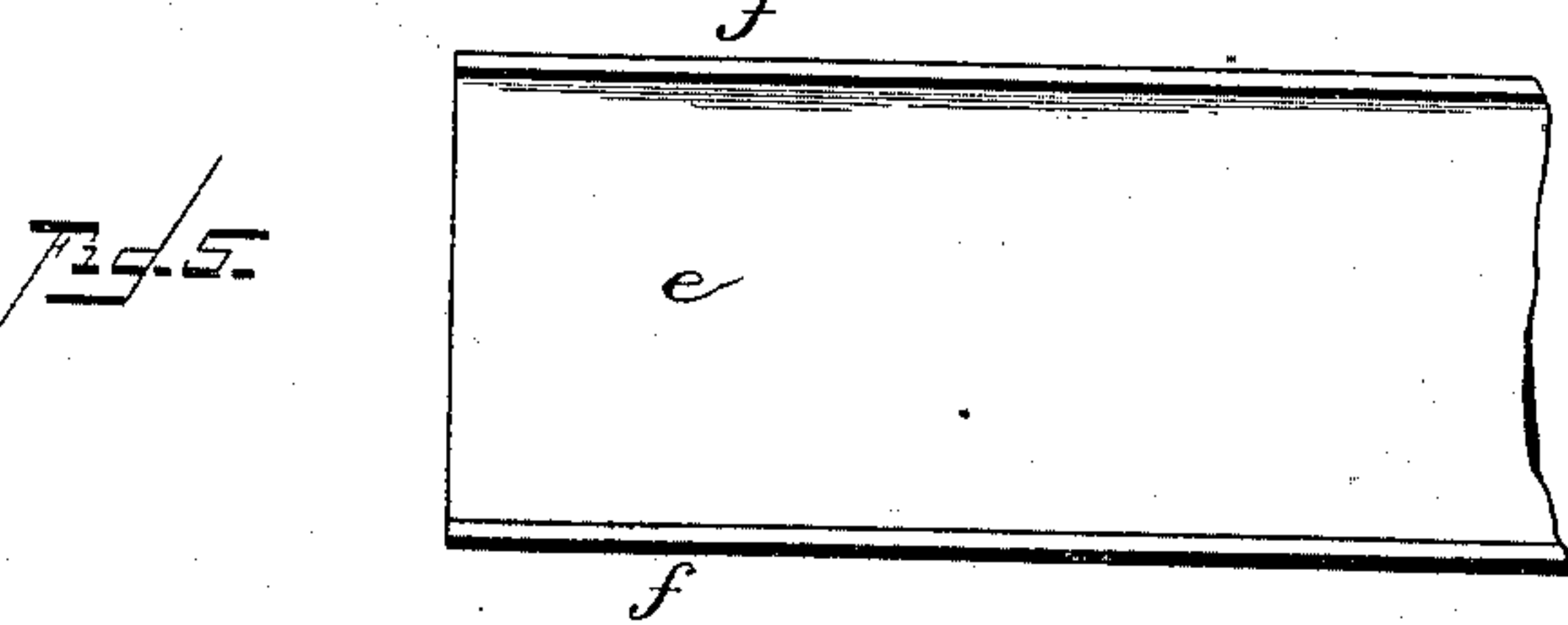
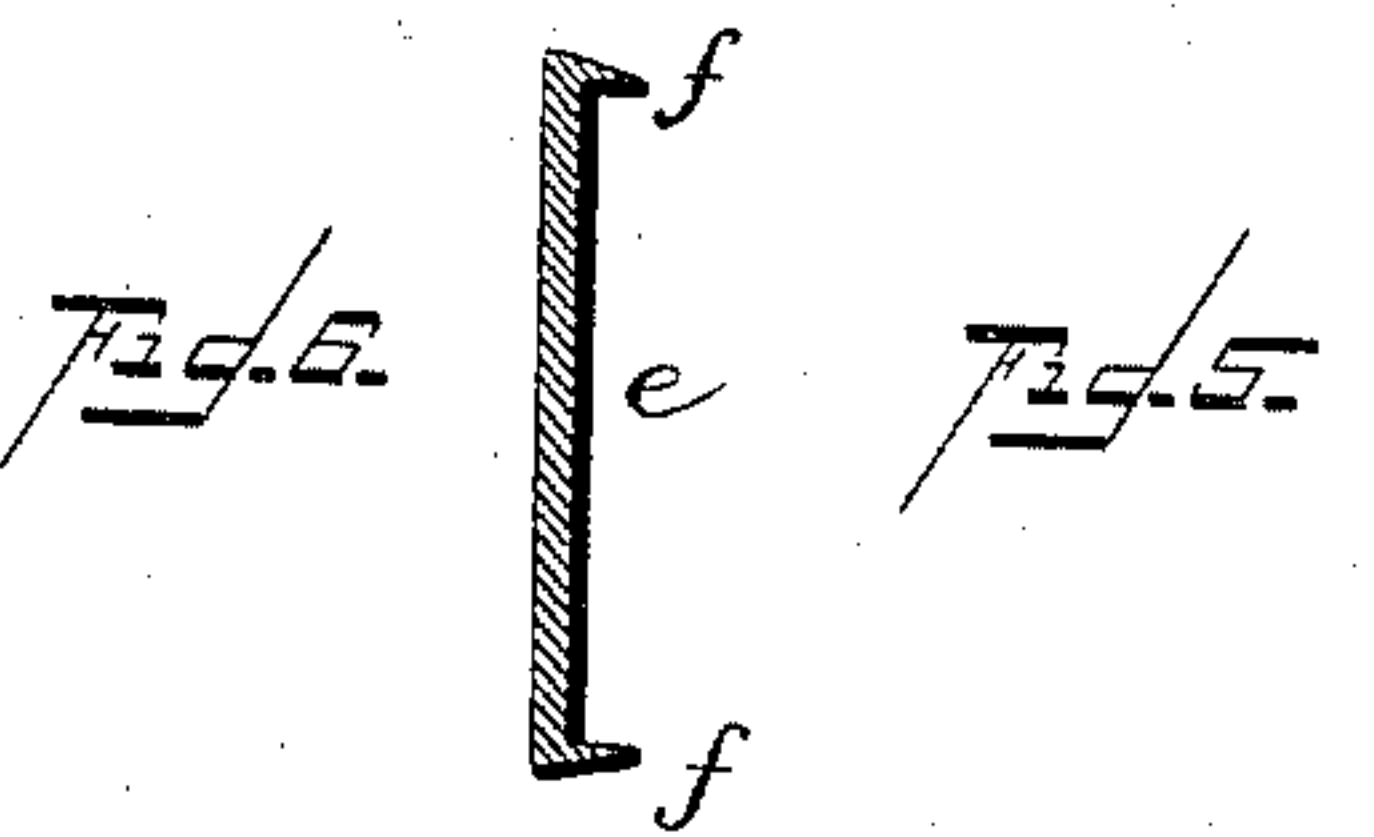
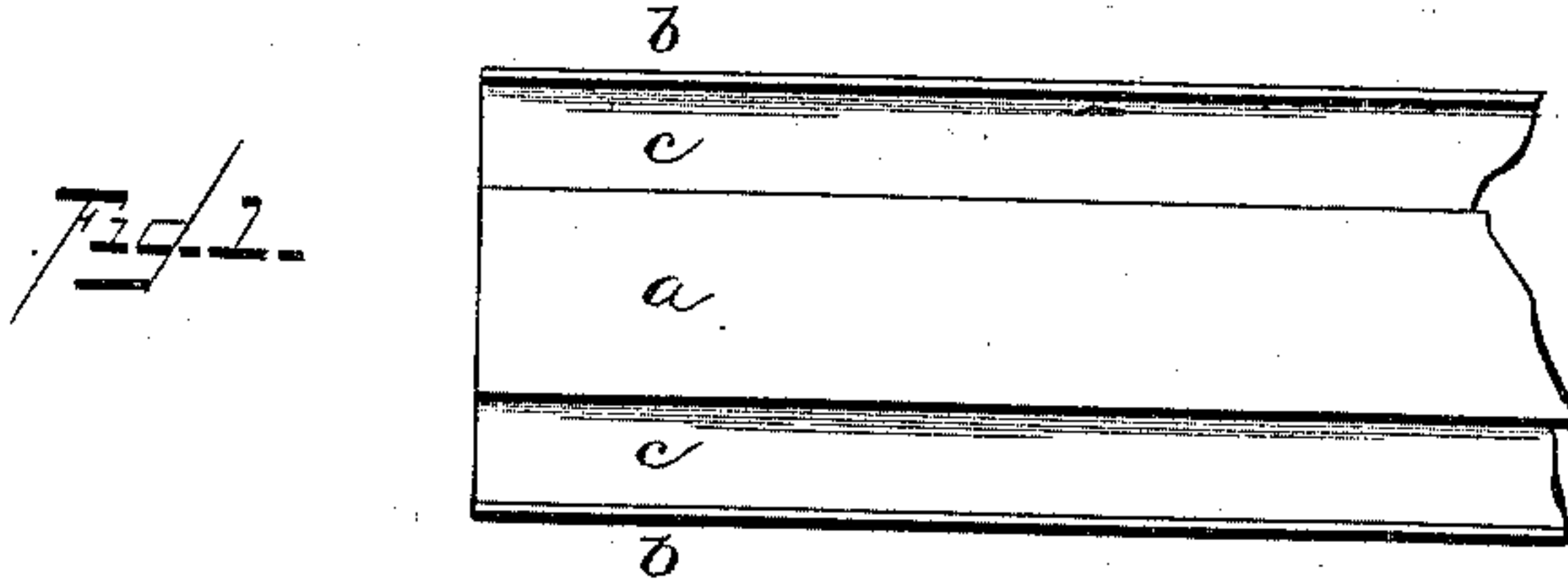
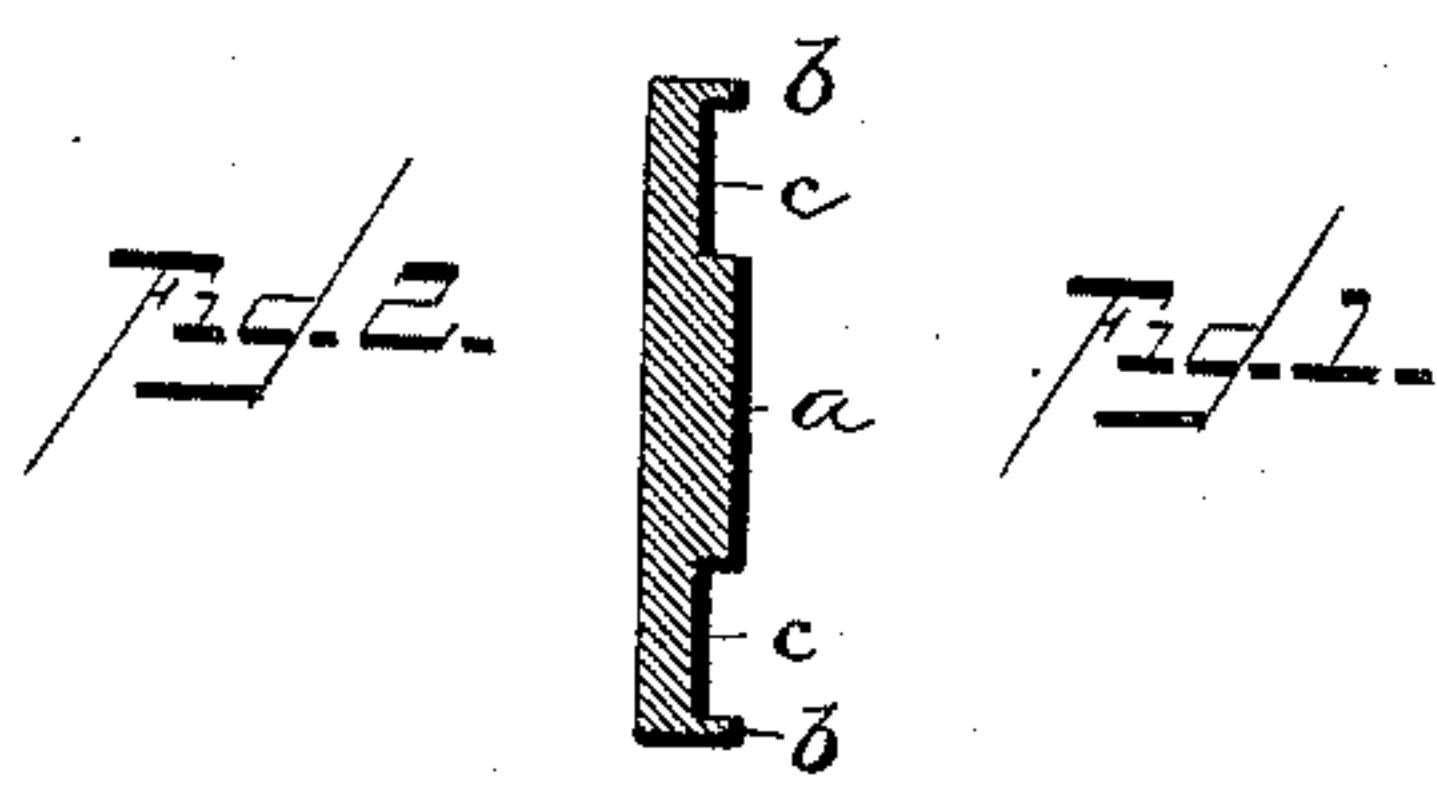


(No Model.)

C. T. SCHOEN.  
MANUFACTURE OF JOURNAL BOX KEYS.

No. 426,604.

Patented Apr. 29, 1890.



WITNESSES  
H. A. Smith  
E. A. Kinckel

INVENTOR  
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his Attorney



# UNITED STATES PATENT OFFICE.

CHARLES T. SCHOEN, OF PHILADELPHIA, PENNSYLVANIA.

## MANUFACTURE OF JOURNAL-BOX KEYS.

SPECIFICATION forming part of Letters Patent No. 426,604, dated April 29, 1890.

Application filed January 24, 1890. Serial No. 337,981. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES T. SCHOEN, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Improvement in the Manufacture of Journal-Box Keys, of which the following is a full, clear, and exact description.

The keys for the support of the brasses in journal-boxes, so far as I am aware, have heretofore been made as castings, their shape and construction rendering their production by forging or otherwise rather impracticable.

Obviously a wrought-metal key has many advantages over a cast-metal key; and it is the object of my invention to produce a wrought-metal key which may be manufactured and sold at about the cost of cast-metal keys.

To this end my invention consists in the manufacture of wrought-metal keys for journal-boxes by first making a pile of the approximate shape of the key, then heating the same to a welding heat, and then subjecting the thus-heated pile to the action of suitable dies or a press for giving the ultimate shape.

The invention also consists in a wrought-metal key for journal-boxes constructed substantially as described.

In the accompanying drawings, illustrating my invention, in the several figures of which like parts are similarly designated, Figures 1 and 2 are respectively a plan and cross-section of foundation-blank stock. Figs. 3 and 4 are respectively a plan and cross-section of the side-blank stock. Figs. 5 and 6 are respectively a plan and cross-section of stock for forming the pile-tie and ultimately the back rib. Fig. 7 is a perspective view of the pile constructed from the stock just described. Fig. 8 is a perspective view of the finished key produced from this pile; and Fig. 9 is a perspective view of a wrought-metal key constructed in accordance with my invention, but omitting the back rib.

In practicing my invention I take stock of the general outline represented in Figs. 1 and 2, the same being rolled metal having a central flat rib *a*, edge flanges *b*, and intervening grooves *c*, and cut the same into suitable key-lengths, (see A, Fig. 7,) which I designate herein the "base-piece." A bar *d*, which is

triangular in general outline, (two of the angles being cut off, thus truncating the triangle, as it were,) is next cut into suitable lengths B B, which constitute the side pieces, and are shorter than the length of the base-piece A by substantially the distance represented in Fig. 7. These side pieces cut from the stock *d* fit tightly into the grooves *c c* of the base-piece. I next cut from the stock *e*, which, as will be observed, has the side flanges *f*, a binder C, as represented in Fig. 7, and this binder C is driven onto the back of the pile, as represented in Fig. 7. The pile thus prepared is then heated to a welding heat and then subjected to the action of suitable dies, by which the several parts are welded together to form the key. After the key is thus formed that portion of the bottom which was the blank A is cut away centrally, so as to leave the hooks *g*. The binder C by the welding operation is transformed into the rib *h*; but as this rib is not used in some forms of keys I may omit it in the formation of my improved wrought-metal key, and I have indicated in Fig. 9 the key thus constructed.

Very obviously the portion of the device which is excised between the hooks may be so cut out either before or after welding.

Keys for journal-boxes thus constructed of wrought metal may be produced at about the cost of cast metal and are very much more durable and very much more satisfactory in practice, as will be obvious to those skilled in the art. They may be interchanged with the keys now commonly used.

What I claim is—

1. The art of manufacturing wrought-metal keys for journal-box brasses, consisting in binding together into the approximate shape of a finished key a base-piece having a central rib, edge flanges, and intermediate grooves and side pieces having a general triangular cross-section and fitted in said grooved base and of less length than the base-piece, then raising the pile to a welding heat, and then subjecting the thus-heated pile to the action of dies to give the final shape, substantially as described.

2. The art of manufacturing wrought-metal keys for journal-box brasses, consisting in forming a pile of the approximate shape of

the finished key from a base-piece having a central rib, edge flanges, and intermediate grooves, side pieces having a general triangular cross-section and fitted in the grooves  
5 of the base-piece and of less length than the base-piece, and a flanged binder fitted to the back of the assembled base-piece and side pieces, then raising the pile to a welding heat, and then subjecting the thus-heated pile to  
10 the action of dies to shape it, and finally cutting the hooks, substantially as described.

3. As an improved article of manufacture, a wrought-metal key for journal-box brasses, constructed from a die-pressed pile, substantially as described. 15

In testimony whereof I have hereunto set my hand this 23d day of January, A. D. 1890.

CHARLES T. SCHOEN.

Witnesses:

WILLIAM H. SCHOEN, Jr.,  
EDWARD P. HIPPLE.