

No. 679,120.

Patented July 23, 1901.

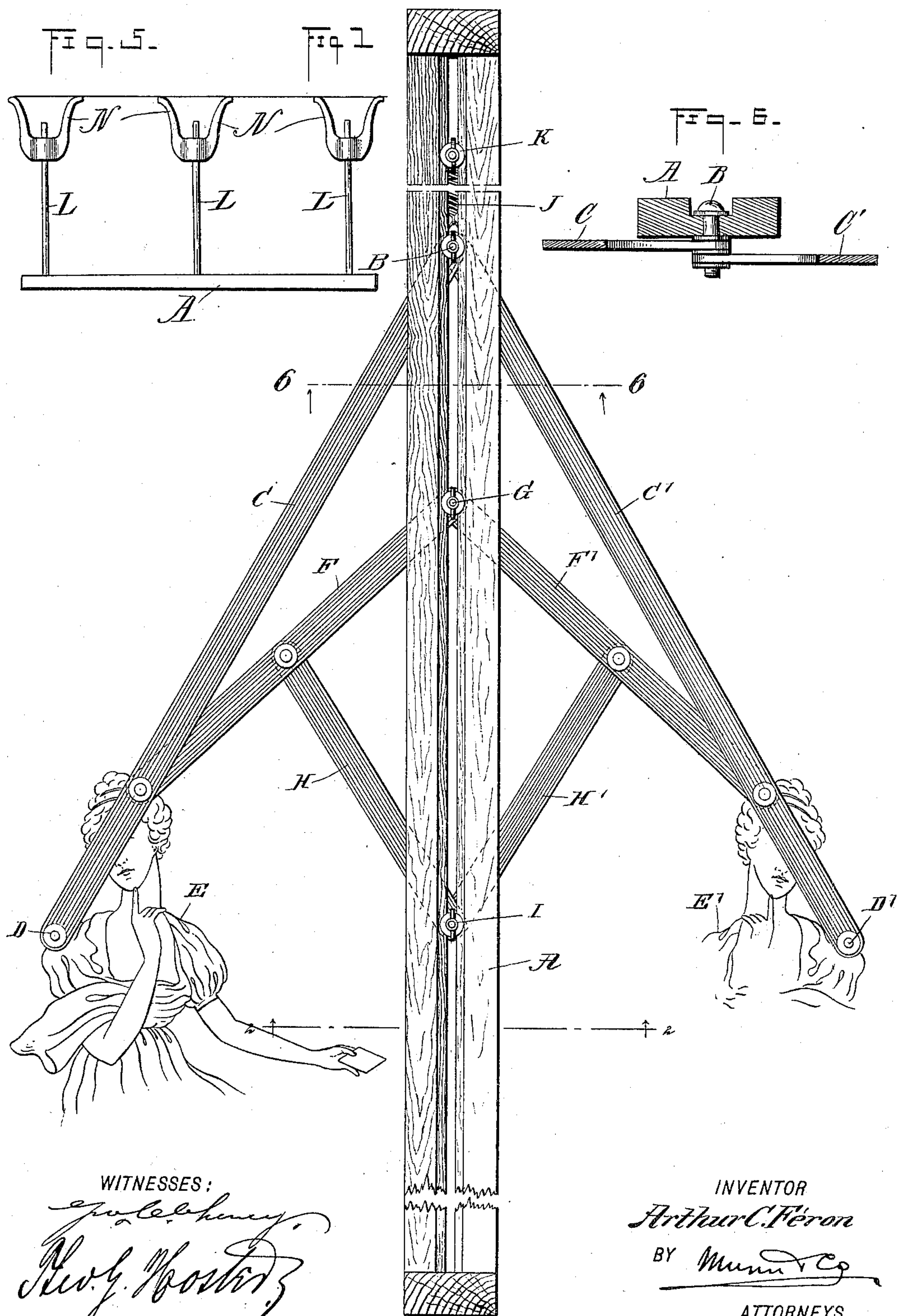
A. C. FÉRON.

CARVING AND DÉLINEATION MACHINE.

(Application filed Mar. 5, 1901.)

(No Model.)

2 Sheets—Sheet 1.



No. 679,120.

Patented July 23, 1901.

A. C. FÉRON.

CARVING AND DELINEATION MACHINE.

(Application filed Mar. 5, 1901.)

(No Model.)

2 Sheets—Sheet 2.

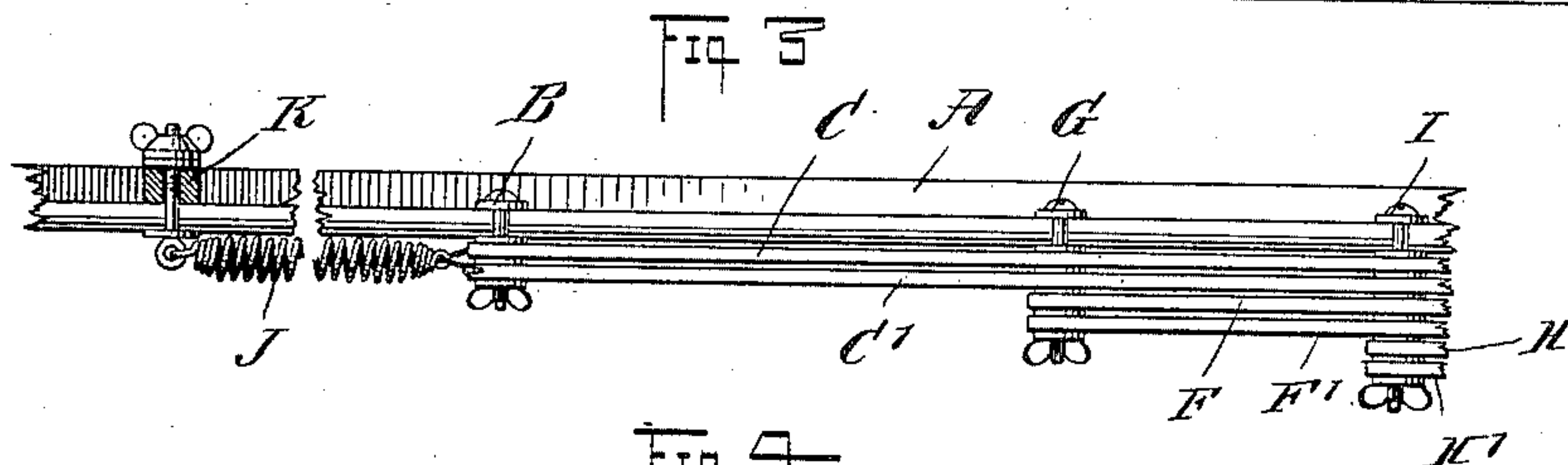
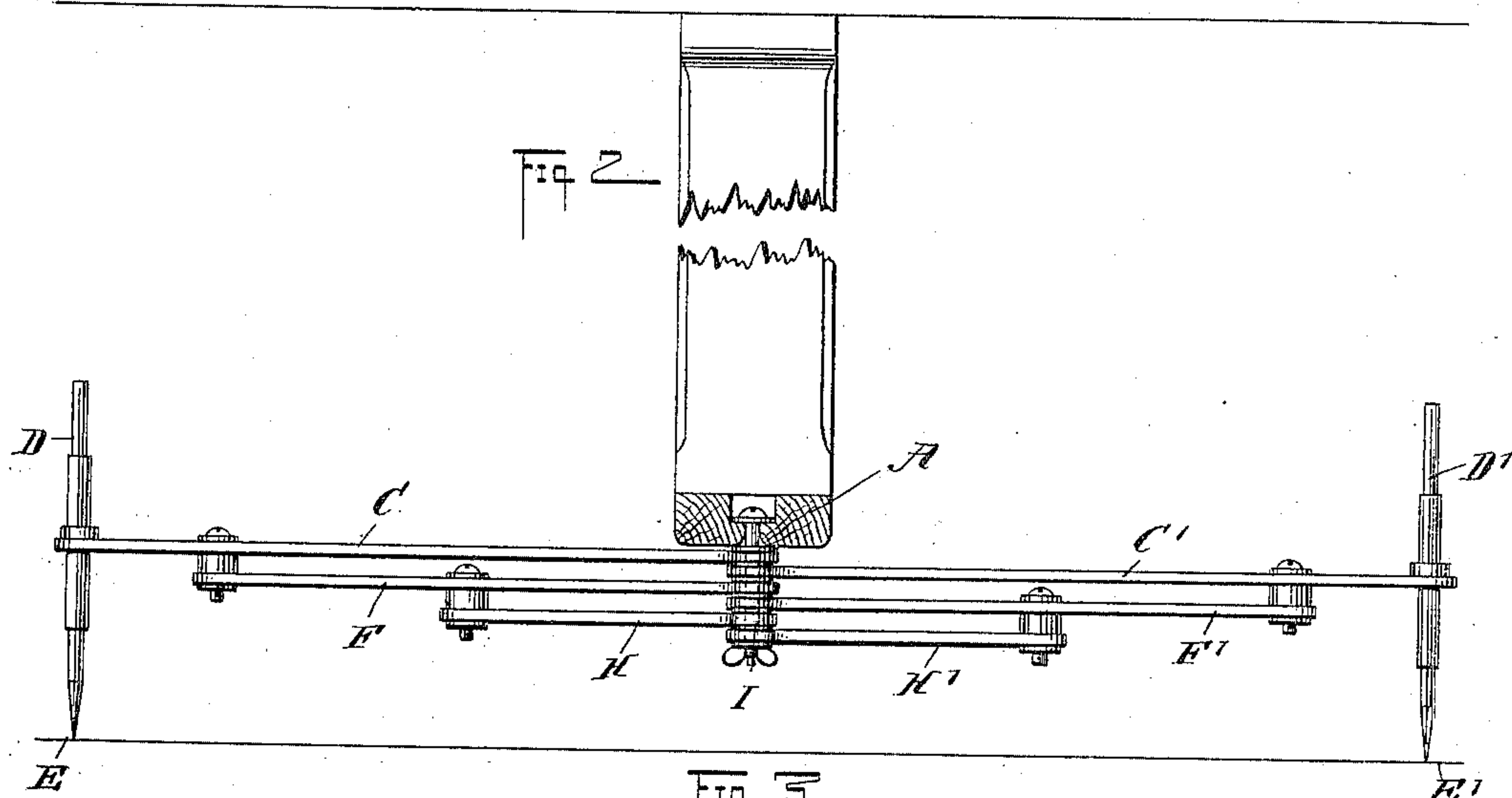
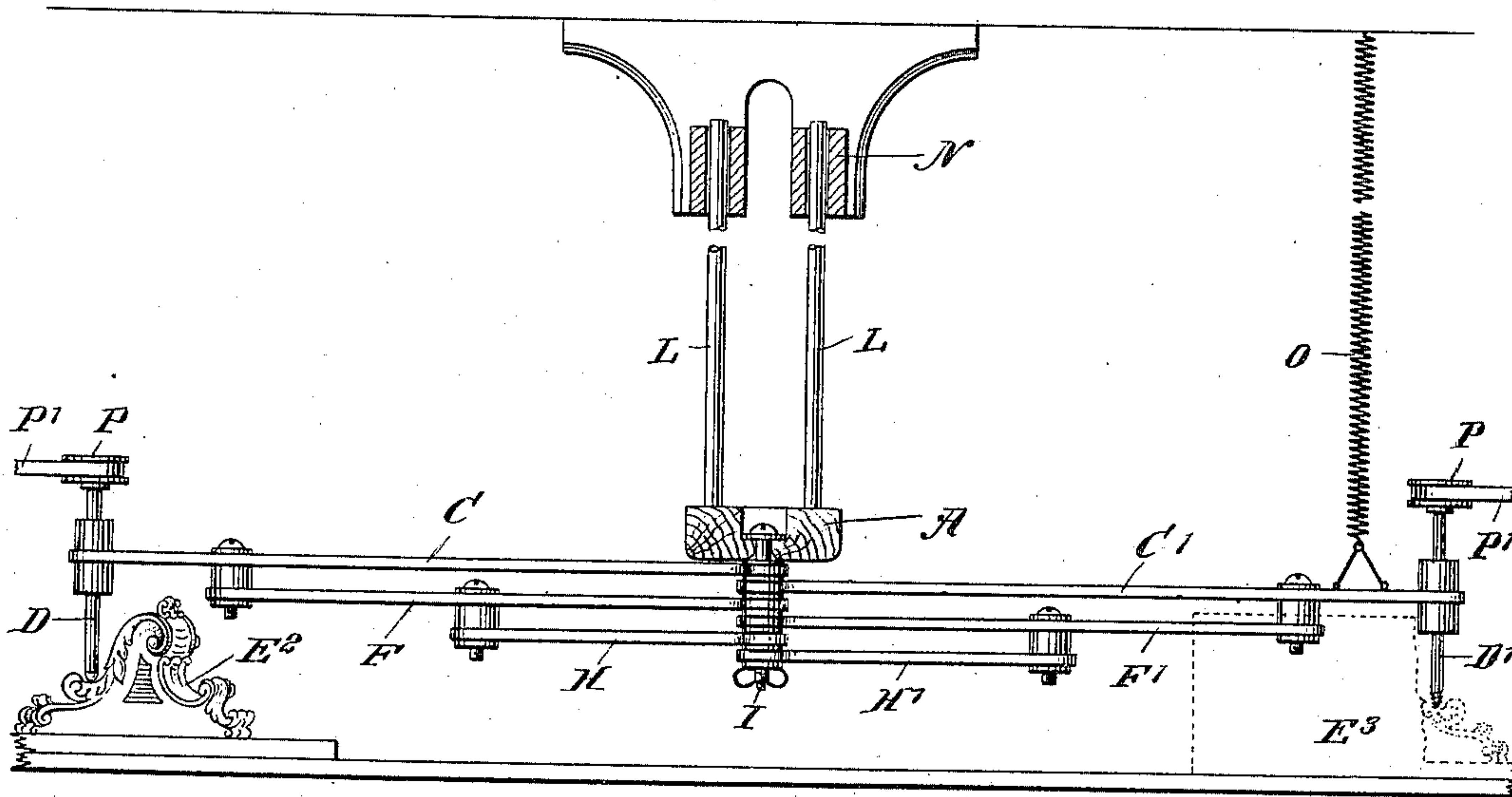


Fig. 4



WITNESSES:

W. J. Hooper
W. J. Hooper

INVENTOR

Arthur C. Féron

BY

Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

ARTHUR C. FÉRON, OF NEW YORK, N. Y.

CARVING AND DELINEATION MACHINE.

SPECIFICATION forming part of Letters Patent No. 679,120, dated July 23, 1901.

Application filed March 5, 1901. Serial No. 49,744. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR C. FÉRON, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Carving and Delineation Machine, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved carving and delineation machine, which is simple and durable in construction, very effective in operation, and arranged to accurately draw right and left hand figures or to carve blocks right or left handed, according to a predetermined facsimile or pattern.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the improvement arranged for reproducing line drawing in a reversed position. Fig. 2 is a sectional front elevation of the same on the line 2 2 in Fig. 1. Fig. 3 is a side elevation of the same with the guideway in section. Fig. 4 is a sectional front elevation of a modified form of the improvement arranged for carving a block according to a predetermined pattern. Fig. 5 is a side elevation of the device shown in Fig. 4, being on a reduced scale; and Fig. 6 is a section on line 6 6 in Fig. 1.

The improved carving and delineation machine illustrated in Figs. 1, 2, and 3 consists, essentially, of a guideway A, adapted to be fastened to a ceiling or other suitable support, and in said guideway is mounted to slide a pivot B for arms C C', extending from said pivot in opposite directions relatively to the guideway A, as is plainly illustrated in Fig. 1. The free ends of the arms C C' carry a tracer D and a pencil or other tool D', of which the tracer D is intended to follow the lines of the figure E to be reproduced by the pencil or tool D', as indicated at E' in Fig. 1. Links F F' are pivotally connected with a pivot G, fitted to slide in the guideway A, and

said links F F' are pivotally connected by braces H H' with a pivot I, likewise fitted to slide in the guideway A. The pivots B, G, and I can be of any suitable construction, but I preferably employ bolts provided with winged nuts, as shown in the drawings. The heads of these bolts work in the recess of the guideway, and to the bolts after passing through the slot of the said guideway the arms are pivoted. Washers are placed upon the bolts for spacing the arms from each other and from the guideway.

It is evident that when the operator follows with the tracer D the lines of the design to be reproduced, then the arm C is caused to slide forward and backward by the movement given to the arm by the operator, the pivot B guiding the movement of the arm in the guideway A; but as the said arm C is pivotally connected with the link F and the latter is pivotally connected by the brace H with the pivot I, and the latter and the pivots G and B are common to the arm C', the link F', and the arm H', it is evident that a movement identical to the one given to the tracer D is given to the tool or pencil D', so that the latter draws the figure E', but in a reverse direction to the one shown at E.

If it is desired to produce a plurality of figures of one kind only, it is first necessary to reproduce from the original design a reversed design and then use this as a pattern for reproducing a desired number of figures corresponding to the original design.

In order to facilitate the movement of the arms C C', the links F F', the braces H H', and their pivots B, G, and I, I prefer to connect the pivot B with one end of a spring J, attached to a clamp K, adjustably held in the guideway A.

In the arrangement shown in Fig. 4 a block E² is employed, on which operates the tracer D, which in the present instance is a cutting-tool to be manipulated by the sculptor to sculpture the block E², while the carving-tool D' operates on the block E³ to reproduce the ornamentation on the block E². The tracer D and the carving-tool D' may be both rotated, and for this purpose each is provided with a pulley P, connected by a belt P' with suitable machinery for imparting a rotary motion to the tracer and the carving-tool, so that the

latter readily cuts the block, and the ornamentation on the pattern is reproduced, but in a reversed position.

The arms C C', the links F F', and the
5 braces H H', with their pivots and guideway, remain the same, as above described, the guideway, however, being mounted to slide vertically, and for this purpose is provided with suitable rods L, mounted to slide ver-
10 tically in bearings N, attached to a ceiling or other support. It is to be understood that a suitable number of guide-rods L are to be employed to properly support the guideway A. A spring or springs O, connected with
15 the arm C', supports the latter in the proper position and at the same time allows raising and lowering of the guideway and the parts carried thereby, so as to permit the tracer to readily follow the configuration of the block
20 and to allow the carving-tool D' to cut the block E³ accordingly for reproducing the ornamentation, as above mentioned.

The device is very simple and durable in construction, is easily manipulated by the
25 designer or carver, and accurately reproduces drawings or relief or other patterns, but in a reversed position, as above described.

Having thus fully described my invention, I claim as new and desire to secure by Letters
30 Patent—

1. A carving or delineation machine, comprising a pair of arms connected with each other and carrying a tracer and a tool, a pair of links pivotally connected with each other
35 and with said arms, a pair of braces pivotally connected with each other and with said links between their ends, and a guideway in which the connecting-pivots of said arms, links and braces are mounted to slide in a straight line,
40 said arms, links and braces extending at opposite sides of said guideway, as set forth.

2. A carving or delineation machine, comprising a pair of arms connected with each other and carrying a tracer and a tool, a pair
45 of links pivotally connected with each other and with said arms, a pair of braces pivotally connected with each other and with said links, a guideway in which the connecting-pivots of said arms, links and braces are

mounted to slide in a straight line, said arms, 50 links and braces extending at opposite sides of said guideway, and means by which the guideway and the parts carried thereon may be adjusted vertically, as set forth.

3. A carving or delineation machine, com- 55prising a pair of arms connected with each other and carrying a tracer and a tool, a pair of links pivotally connected with each other and with said arms, a pair of braces pivotally connected with each other and with said
60 links, a guideway in which the connecting-pivots of said arms, links and braces are mounted to slide in a straight line, said arms, links and braces extending at opposite sides
65 of said guideway, and a spring for supporting said arms, links, braces and guideway, as set forth.

4. A carving or delineation machine, comprising a pair of arms connected with each other and carrying a tracer and a tool, a pair 70of links pivotally connected with each other and with said arms, a pair of braces pivotally connected with each other and with said links, the connecting-pivots of the said arms, links and braces being mounted to slide in a
75 straight line, and a spring pressing one of said pivots, as set forth.

5. A carving or delineation machine, comprising a guideway adapted to be suspended in a horizontal position, a pair of arms piv- 80otated together and having their pivot sliding in the guideway, one of said arms carrying a tracer and the other a tool, a pair of links pivoted together and having their pivot sliding in said guideway, the free ends of the 85links being pivoted to the arms near their outer ends, and braces pivoted together and having their pivot sliding in the guideway, the other ends, of the braces being pivoted to the links between their ends, as set forth. 90

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ARTHUR C. FÉRON.

Witnesses:

THEO. G. HOSTER,
EVERARD BOLTON MARSHALL.