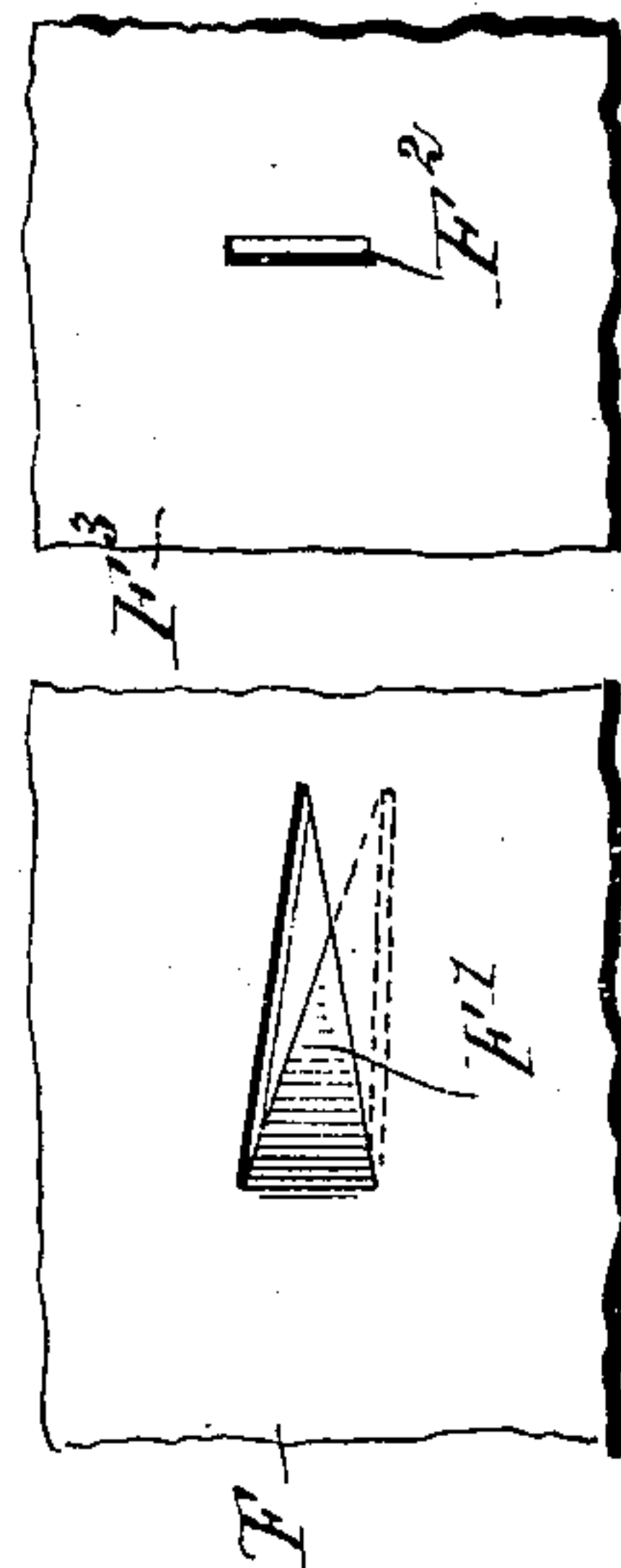
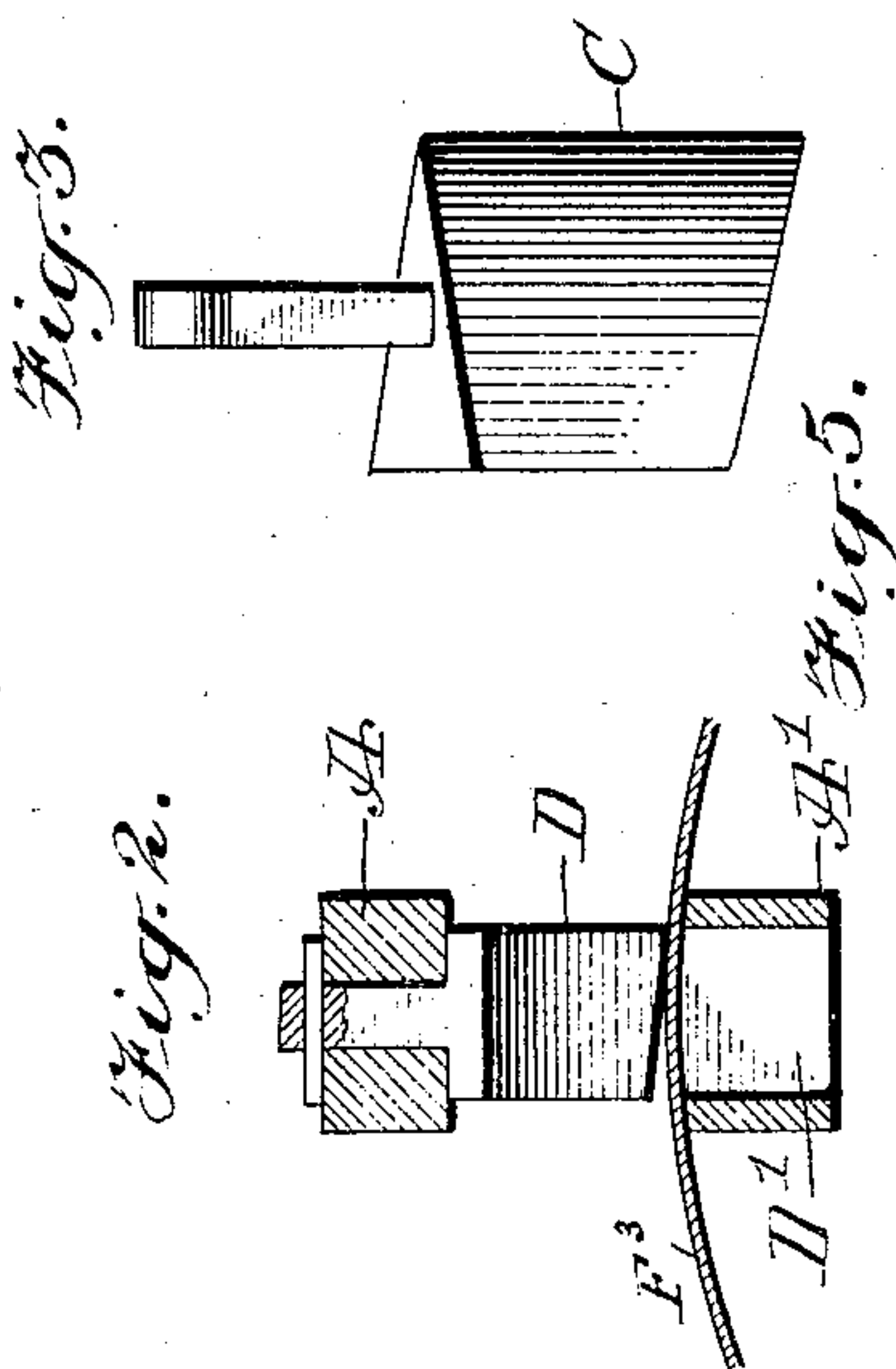
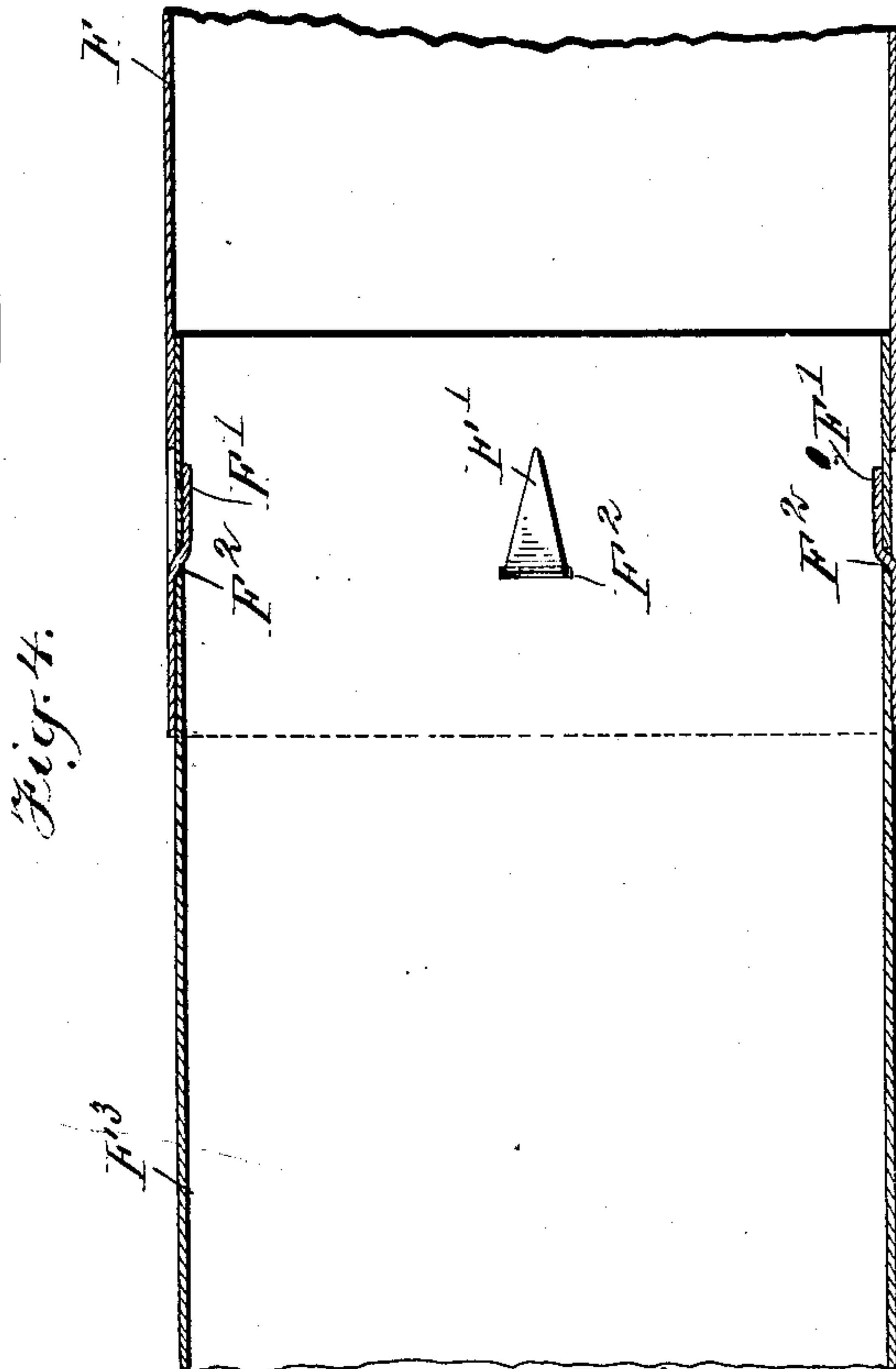
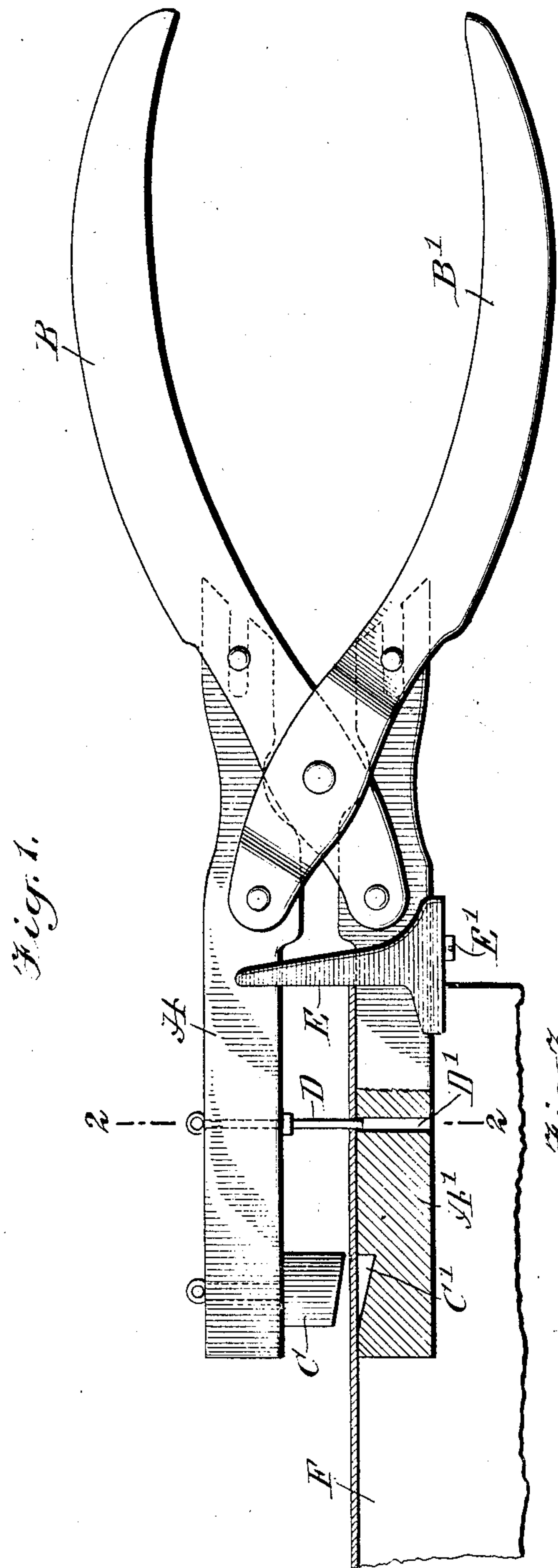


No. 824,551.

PATENTED JUNE 26, 1906.

A. J. LEVIS.
CUTTING AND PUNCHING TOOL.
APPLICATION FILED OCT. 10, 1905.



WITNESSES:

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ADELORE JOSEPH LEVIS, OF HOUGHTON, MICHIGAN.

CUTTING AND PUNCHING TOOL.

No. 824,551.

Specification of Letters Patent.

Patented June 26, 1906.

Application filed October 10, 1905. Serial No. 282,116.

To all whom it may concern:

Be it known that I, ADELORE JOSEPH LEVIS, a citizen of the United States, and a resident of Houghton, in the county of Houghton and State of Michigan, have invented a new and improved Cutting and Punching Tool, of which the following is a full, clear, and exact description.

The invention relates to the cutting and punching of sheets and bars; and its object is to provide a new and improved cutting and punching tool more especially designed for the use of tinners, plumbers, and other mechanics and arranged to permit of forming tongues and slots in the ends of stovepipe-sections to allow convenient interlocking of adjacent stovepipe-sections.

The invention consists of novel features and parts and combinations of the same, which will be more 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 side elevation of the improvement as applied on a stovepipe-section for cutting a tongue and a slot therein, a portion of the stovepipe being shown and in section. Fig. 2 is a transverse section of the same on the line 2 2 of Fig. 1. Fig. 3 is a perspective view of the cutter. Fig. 4 is a longitudinal sectional elevation of a stovepipe, showing adjacent sections interlocked; and Fig. 5 is a plan view of the ends of adjacent stovepipe-sections provided with a tongue and a slot for interlocking purposes.

The parallel members A and A' of the tool are pivotally connected with a pair of pivoted handles B and B', adapted to be taken hold of by the operator to impart a parallel motion to the members A and A' on closing or opening the handles B and B'. On the member A are removably secured a cutter C and a punch D, and in the top face of the member A' is formed a recess C', arranged directly opposite the cutter C, and in the said member A' is also formed an aperture D' in register with the punch D.

The cutter C is triangular in cross-section, and its bottom is inclined upwardly from the apex to the base, and the registering recess C' is similarly shaped—that is, is made triangular—and its bottom is inclined upwardly from the apex to the base, so as to fully reg-

ister with the cutter C. The punch D is arranged transversely, and its bottom is inclined in a like direction. (See Fig. 2.)

The punch D is adapted to form a gage for the cutter C to gage the distance the tongue F' is to be formed from the end of the stovepipe-section F. On the member A' is adjustably secured a gage E by the use of a set-screw E' or other suitable means, so as to gage the distance the aperture F² is to be formed from one end of the section F³ of a stovepipe or other article to be provided with a slot. It is understood that the stovepipe-sections F and F³ are provided at adjacent ends with a tongue F' and slot F², respectively, to permit convenient interlocking of the stovepipe-sections by engaging the tongue F' with the slot F², as plainly shown in Fig. 4. By the arrangement described it will be seen that the end of a stovepipe-section can be readily passed between the members A and A', so that the top of the member A' rests against the inner face of the stovepipe-section, and consequently the member A' forms an anvil. When the stovepipe-section F has been introduced or passed between the members A and A' until the edge of the stovepipe-section F abuts against the punch D and the handles B and B' are pressed toward each other, then the member A moves toward the member A', and in doing so the cutter C cuts the material of the stovepipe-section F to produce the triangular tongue F'. When the other section F³ is inserted between the members A A' until the outer edge of the section abuts against the gage E and the handles B B' are pressed, then the punch D shears the material of the stovepipe-section, so as to form the slot F². By reference to Figs. 4 and 5 it will be seen that the tongue F' and the slot F² are in longitudinal alinement with each other, and the slot F² is of a width slightly in excess of the thickness of the material and the length of the slot is somewhat in excess of the width of the tongue F' at the base thereof. When the two stovepipe-sections F F³ are joined together, the tongue F' can be readily engaged with the corresponding slots F², so as to securely interlock the stovepipe-sections, as will be readily understood by reference to Fig. 4.

The tool is very simple and durable in construction, is not liable to get easily out of order, and, if desired, the cutter C and the punch D may be readily removed from the

member A for grinding purposes or to be replaced by new ones whenever it is desired to do so.

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

1. A cutting and punching tool comprising a pair of members, and means for moving the members parallel toward and from each other, one of the members carrying a cutter and a punch, the punch being arranged behind the cutter, and of greater length, whereby to form a gage for the cutter, and the other member having a recess and an aperture for cooperating with the cutter and the punch, respectively.

2. A cutting and punching tool comprising a pair of members, and means for moving the members parallel toward and from each other, one of the members carrying a cutter and a punch and the other member having a recess opposite the cutter and an aperture opposite the punch, the said cutter having a triangular cross-section and a bottom inclined longitudinally and upwardly from the apex to the base.

3. A cutting and punching tool comprising a pair of members, and means for moving the members parallel toward and from each other, one of the members carrying a cutter and a punch and the other member having a recess opposite the cutter and an aperture opposite the punch, the said cutter having a

triangular cross-section and a bottom inclined longitudinally and upwardly from the apex to the base and the said punch having its bottom inclined transversely.

4. A cutting and punching tool comprising a pair of members, and means for moving the members parallel toward and from each other, one of the members carrying a cutter and a punch and the other member having a recess opposite the cutter and an aperture opposite the punch, the said cutter having a triangular cross-section and a bottom inclined longitudinally and upwardly from the apex to the base, the said recess corresponding in shape to the said cutter and the bottom of the recess being inclined upwardly from the base to the apex.

5. A cutting and punching tool, comprising a pair of members, and means for moving the members parallel toward and from each other, a cutting device and a punching device arranged in longitudinal alinement between said members and connected therewith, the rear device being arranged to act as a gage for the front device.

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

ADELORE JOSEPH LEVIS.

Witnesses:

WM. CHAMBERLAIN,
JOSEPH OGSTON.