

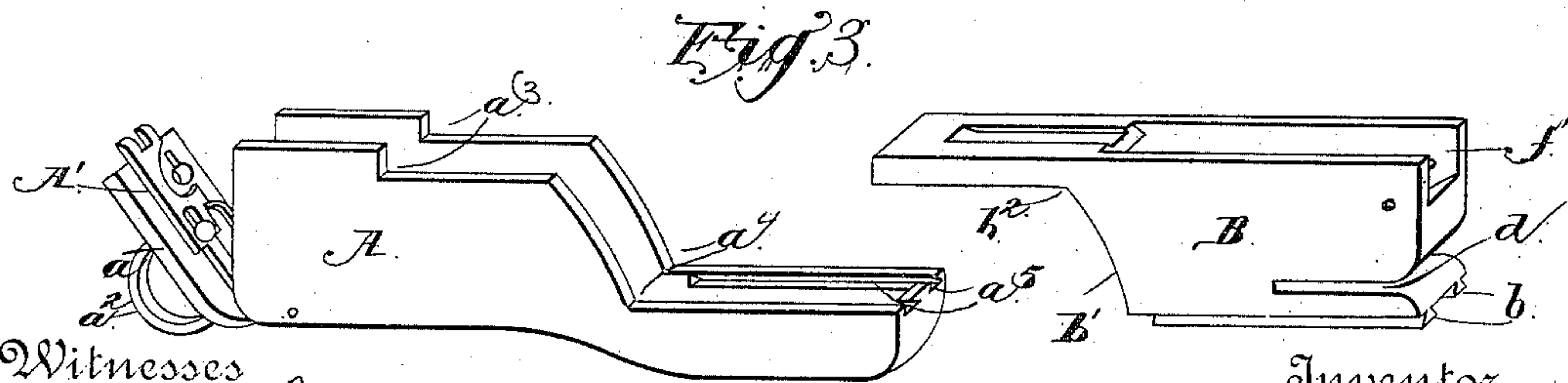
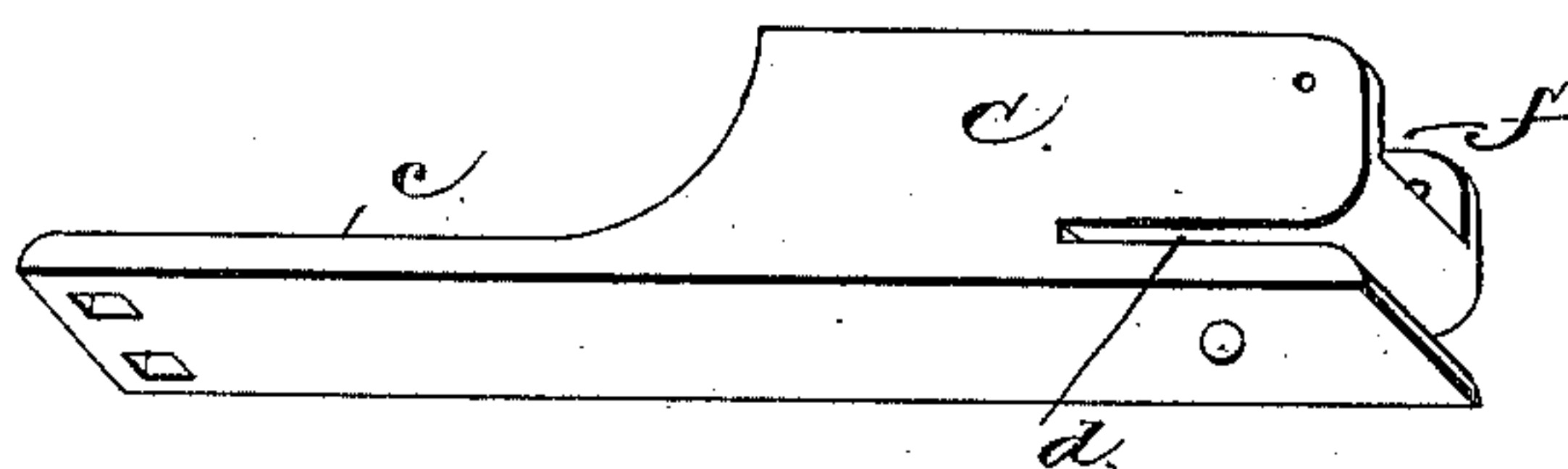
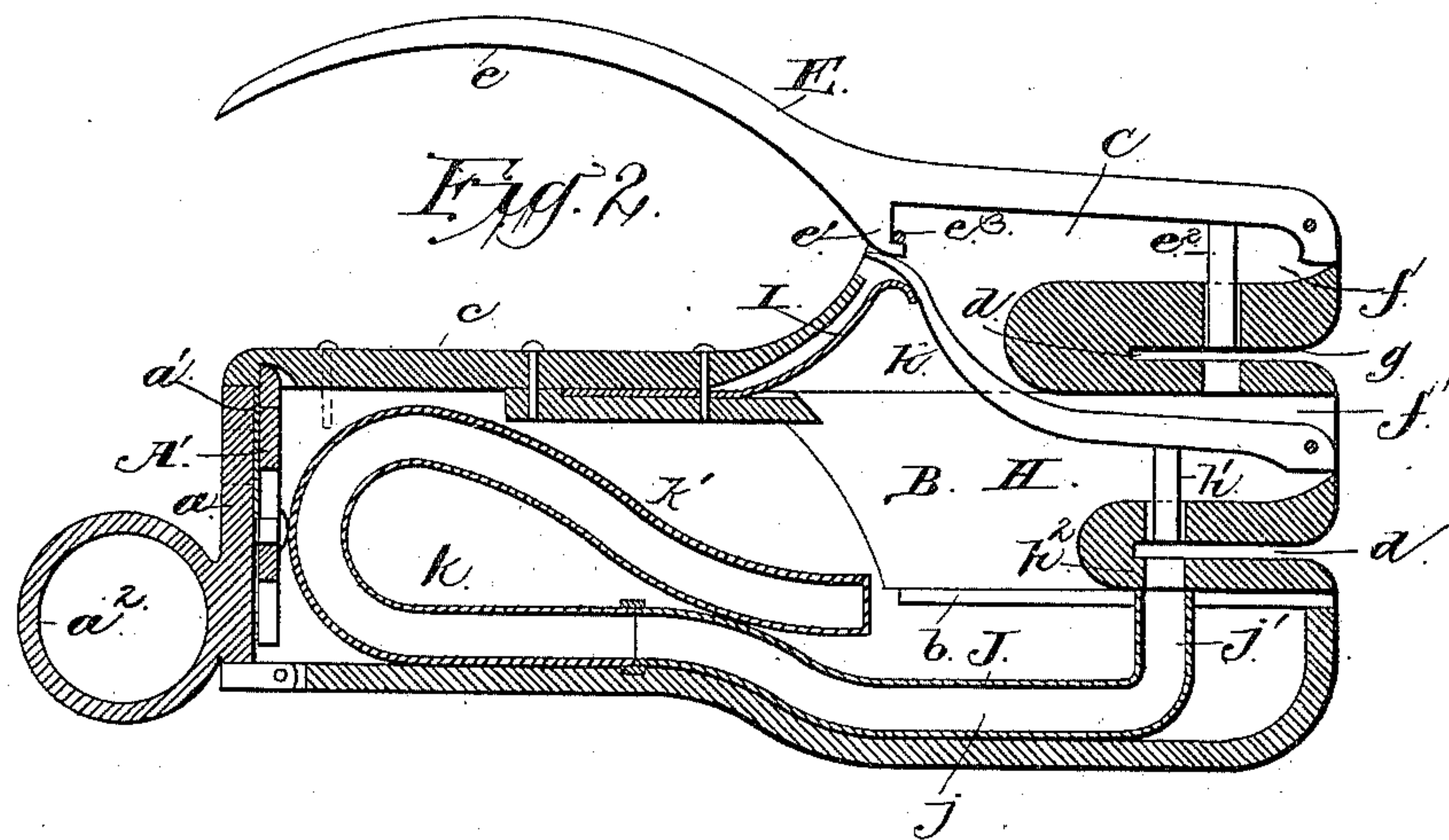
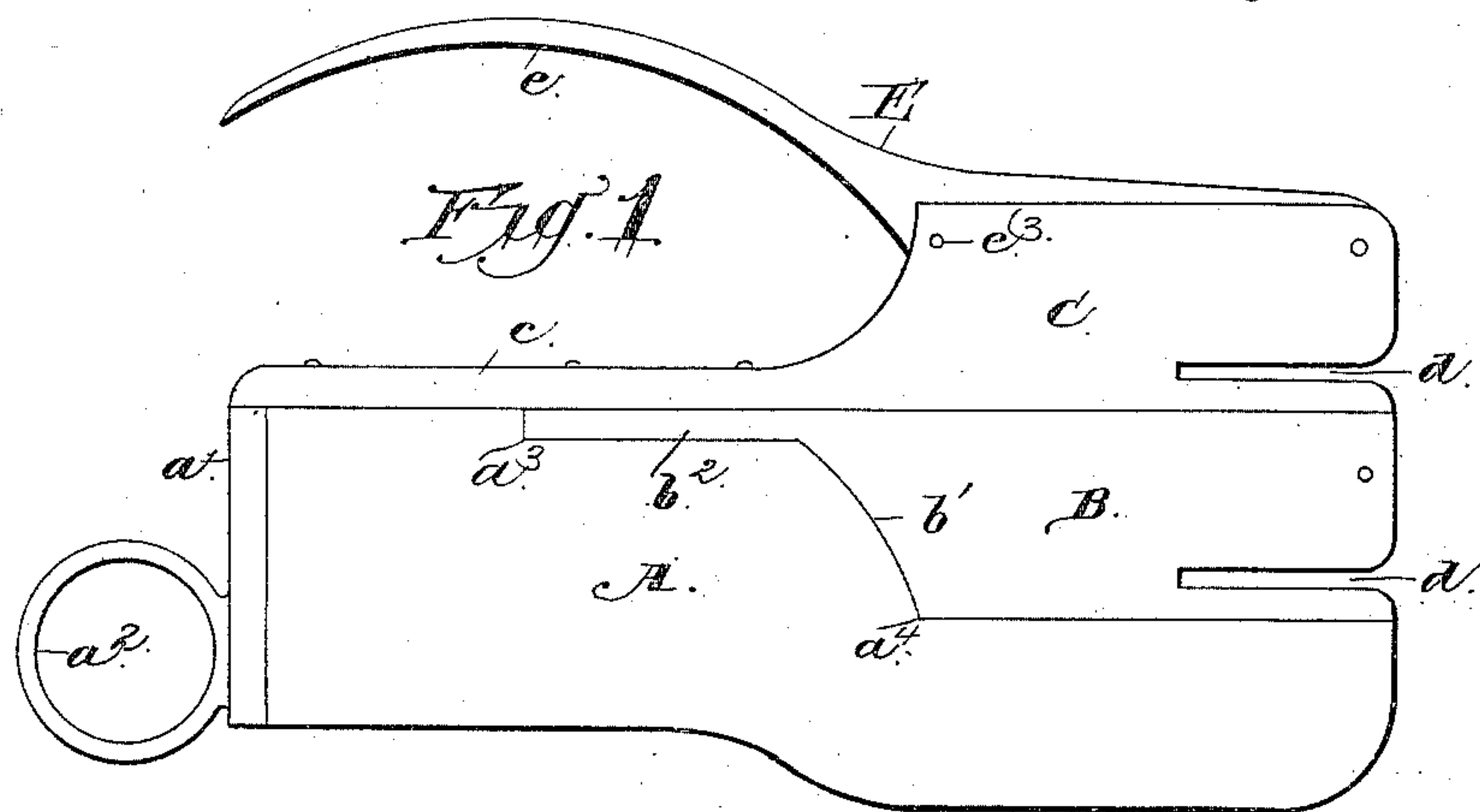
(No Model.)

D. M. KIRKPATRICK.

TICKET PUNCH.

No. 341,756.

Patented May 11, 1886.



Witnesses

M. S. Fowler
H. Berukar

Inventor

D. M. Kirkpatrick

By *his* Attorneys

C. A. Snow

UNITED STATES PATENT OFFICE.

DAVID MARION KIRKPATRICK, OF KANSAS CITY, MISSOURI.

TICKET-PUNCH.

SPECIFICATION forming part of Letters Patent No. 341,756, dated May 11, 1886.

Application filed February 23, 1886. Serial No. 192,902. (No model.)

To all whom it may concern:

Be it known that I, DAVID MARION KIRKPATRICK, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented new and useful Improvements in Ticket-Punches, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to improvements in ticket-punches; and it consists of the novel construction and combination of parts substantially as hereinafter fully set forth, and particularly pointed out in the claims.

The primary object of my invention is to provide a single implement of the class named which shall be capable of retaining the paper or matter punched from a certain class of tickets—as, for instance, cash-fare tickets—and to permit the paper or other material punched from another class of tickets that is retained by the conductor to go to waste—as, for instance, local and coupon tickets.

A further object of my invention is to provide improved means for punching a hole through the ticket, and thus cancel the same, which means shall be very simple, strong, and durable in construction, thoroughly effective and reliable in operation, and cheap and inexpensive of manufacture.

A further object of the device is to provide means whereby the punched material from one class of tickets—i. e., cash fare—is arranged and stored compactly away, and any attempt to tamper with the said punched material will be frustrated and expose the fact that such an attempt to pilfer has been performed.

In the accompanying drawings, Figure 1 is an elevation from one side of a ticket-punch constructed in accordance with my invention. Fig. 2 is a central vertical longitudinal sectional view thereof. Fig. 3 is a detached detail view of the sections of the inclosing-case.

Referring to the drawings, in which like letters of reference indicate corresponding parts in all the figures of the drawings, A, B, and C designate the sections of the inclosing-case of my improved ticket-punch, which are detachably secured or connected together to permit ready access to the interior or chambers thereof. The section A of the case has its rear wall, a , hinged thereto at its lower end, so that it can be readily adjusted, and this

pivoted or hinged rear wall carries a ring, a^2 , for the reception of the finger of the conductor or for suspending the punch from the waist by a belt. The rear wall further carries a lock, A' , of any suitable or ordinary construction, and access to the lock by the key thereof is had through an opening in the wall, which is normally covered by a bolt, a' , the said bolt of the lock entering proper recesses or a keeper in a plate of the section C of the case. The upper edges of the side walls of the case are cut away, as at a^3 , near their middle, and they are again cut away at their front ends, as at a^4 , the front wall of the case-section A having dovetailed recesses a^5 , to properly secure and seat the section B on the section A. The lower edges of the side walls of the section B are provided with dovetailed flanges b , that fit in the recesses a^5 , and the side walls of the sections B are curved and cut, as at $b' b^2$, to tightly fit on the cut-away portions $a^3 a^4$ of the section A when the sections A B are fitted and secured together. The reduced or cut ends b^2 and the upper edges of the section B lie within and flush with the upper edges of the section A. The case-section C fits snugly on the upper edges of the side walls of the section B, and it carries a plate, c , that extends rearwardly to the rear end of the section A. The rear end of the plate c carries recesses for the bolt of the lock A' , and the several sections are properly connected and secured together by means of screws, so that they can be readily taken apart when desired.

The sections B and C are each provided near their lower edges with a longitudinal slot, d , that extends transversely across the same, and in these slots the tickets are inserted to be acted on by the punches of the levers. The front wall of each of the sections is provided with cut-out portions $f f'$, the latter, f' , constituting the delivery or discharge opening of the section B for the coupon or local tickets.

E designates a lever that is pivoted at its front end in the side walls of the upper section, C, of the case, and the front end of this lever is curved or rounded so as to snugly fit and wholly fill the cut-out portion, f , of said case-section C. This lever E is provided at its free end with a handle, e , and at a point about its middle with a hook-shaped arm or lug, e' , and with a punch or cutter arm, e^2 , near its

pivoted end. The punch-arm e^2 works through a proper opening in the die-plate g of the section C and across the slot d therein, and the hook-shaped arm e' of the lever E takes against a stop, e^3 , secured in the casing, so as to limit the upward movement of said lever. A similar punch-lever, H, is arranged in an inclined position within the chambers of the sections B C, and the front end of this lever is pivoted at the front end of the section B, the upper face of the lever being flattened, as shown in Fig. 2, and the front end thereof arranged so as to only partially fill the opening f' in the section B, whereby the matter or paper punched from one class of tickets by the punch-bar e^2 of the lever E will pass through the opening in the die-plate g , and fall upon the upper straight face of the pivoted lever H, and will be discharged through the opening f' , as will be very readily understood. The rear end of this lever H is bent upwardly, as at h , and it is normally held in contact or engagement with the hook-shaped arm e' of the lever E by means of a spring, I, one end of which is clamped between the portion b' of the section B and the plate c of the section C, while the other end is free to bear against the bent rear end, h , of the lever H, and thus hold the levers E H in position for instantaneous operation. The lever H also carries a punch bar or arm, h' , which works across the slot d of the section B, and when it is depressed it passes through a proper opening in a die-plate, h^2 , of the section B, and forces the matter or paper punched from the tickets inserted in the slot d into an open mouth of a tube-like receptacle, J, which is arranged in the case-section A. This receptacle J is made in the form of a tube the diameter of which is equal to or a little greater than the diameter of the punch-bar h' , so that the material punched from the tickets by said bar will be snugly packed within the receptacle, and will fill the same very closely, so that a great number of pieces that have been forced from the tickets can be stored or packed in the receptacle.

The receptacle comprises a straight portion, j , having a bent end, j' , with its mouth left open and fitted in the chamber of the section A, so that it will register with the opening in the die-plate h^2 , to receive the "punches" from the tickets, and said receptacle has a curved or bent portion, k , that provides a section, k' , that lies above the straight section j , the rear end of the section k' being closed. This receiving-tube is made in two or more sections, which are connected together detachably by means of inclosing-bands that fit over the joints, so as to permit ready access to the chambers for the purpose of ascertaining the quantity of clippings or punches contained therein. The receptacle is so arranged in the section A that it can be readily withdrawn therefrom when the rear wall, a , is opened and the receptacle is suitably held in place against movement therein.

The punch is especially adapted for use upon

railway-trains, and the operation thereof is obvious from the foregoing description, taken in connection with the drawings. When a local or coupon ticket is to be punched, it is inserted in the slot d of the upper section, C, and the free end e of the pivoted lever E depressed by pressure of the hand thereon, thus forcing the punch-bar e^2 through the ticket and perforating the same. The paper punched from the ticket passes through the opening in the die-plate of the section C and escapes through the discharge-opening f' . Immediately upon the release of hand-pressure on the lever E the spring returns the same to its normal position for instantaneous use, and the upward movement of the lever is limited by the hook-shaped arm e' coming in contact with the stop e^3 , as hereinbefore described. If a cash fare is collected by the conductor, a piece of paper is punched from a strip of paper or leaf of a book carried by him for this purpose, said strip or sheet being properly entered or fitted into the slot d of the intermediate section, B, and the lever E depressed to actuate the pivoted lever H and force the punch-bar thereof through the strip or sheet. The pressure on the levers is released to enable them to be returned to their normal positions by the spring, and the strip of paper or the leaf of a book removed from the slot d of the section B. The material forced through the die-plate h^2 by the punch-bar h' enters the tube-like receptacle J, and the purpose of thus retaining the punches of the cash fares is to secure a tally between the returns and the money collected by the conductor, and prevent him from defrauding the company in whose employ he serves.

Having thus described my invention, what I claim as new is—

1. In a ticket-punch, a case comprising three sections, A B C, the sections B and C having slots d and openings $f f'$, and the section A having a hinged end wall carrying a locking device, in combination with levers E H, pivoted to the sections B C and carrying the punch-bars arranged to traverse across the slots of the sections B C, a spring for returning the levers to their normal position when pressure thereon is released, and a removable receptacle fitted in the section A to receive the matter punched from tickets by the lever H, substantially as described.

2. In a ticket-punch, a case made in sections A B C, detachably secured together, the sections B and C having the slots d and the openings $f f'$, in combination with a lever, E, pivoted in the section C and wholly filling the opening f thereof, the lever H, pivoted in the section B and leaving a discharge-opening, f' , therein, a spring for normally holding the free end of the lever H in contact with the lever E, and a removable receptacle, J, fitted in the section A of the case, substantially as described.

3. In a ticket-punch, the combination of a case having sections detachable from each other and having ticket-slots, the independent levers

E H, pivoted in two of the case-sections, and provided with punch-bars, and connected for simultaneous operation, and a removable tube-like receptacle wholly inclosed in one of the case-sections and having an open mouth to receive clippings from one class of tickets punched therefrom by one of said levers, substantially as described.

4. In a ticket-punch, a case having three sections detachably connected together, two of the sections being provided with ticket-slots, and the die-plates and the other section having a discharge-opening, in combination with the independently-pivoted levers E H, arranged in two of the case-sections and each carrying a punch-bar arranged to traverse across the ticket-slot and die-plate of one of the case-sections, a spring for normally holding the independent levers in contact and in their elevated position, and a tube-like receptacle removably fitted in the lower case-section to receive clippings from the tickets punched by one of the levers, substantially as described.

5. In a ticket-punch, the combination of a

case having ticket-slots, the independent pivoted levers, each carrying a punch-bar, and a sectional tube-like receptacle wholly inclosed within the case and having an open mouth arranged beneath one of the levers to receive the clippings from the tickets punched thereby, substantially as described.

6. In a ticket-punch, the combination of a case having ticket-slots, the independent levers pivoted in the case and normally held in contact and elevated by a spring inclosed within the case, and a removable tube-like receptacle wholly inclosed within the case and having two sections, said sections being detachably connected together and one being open and bent, as at *j'*, and the other being closed, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

DAVID MARION KIRKPATRICK.

Witnesses:

JOHN N. MILLER,

CHARLES F. STROEH.