

No. 775,303.

PATENTED NOV. 22, 1904.

C. W. KUEN.
TICKET PUNCH.

APPLICATION FILED OCT. 19, 1903.

NO MODEL.

Fig. 1.

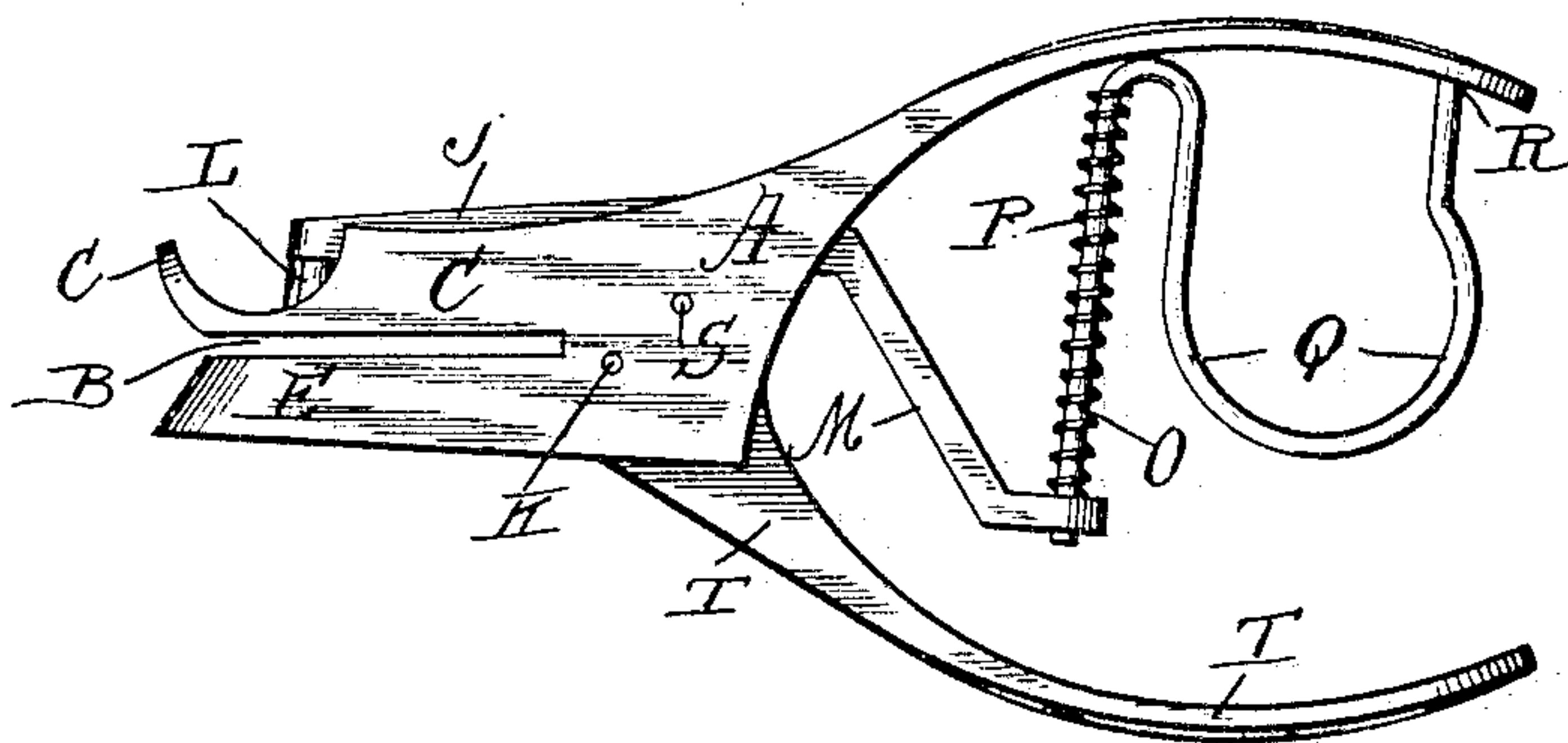
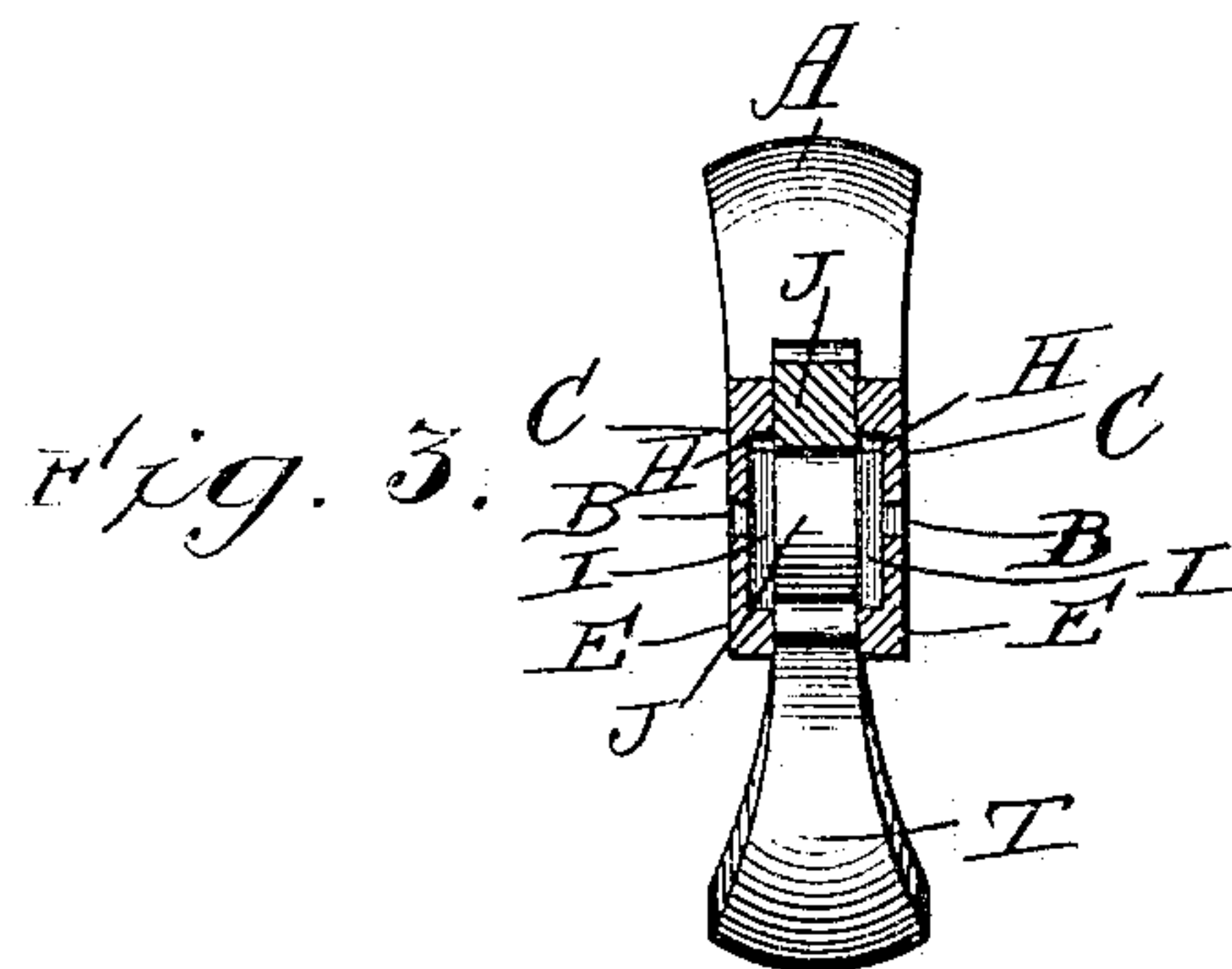
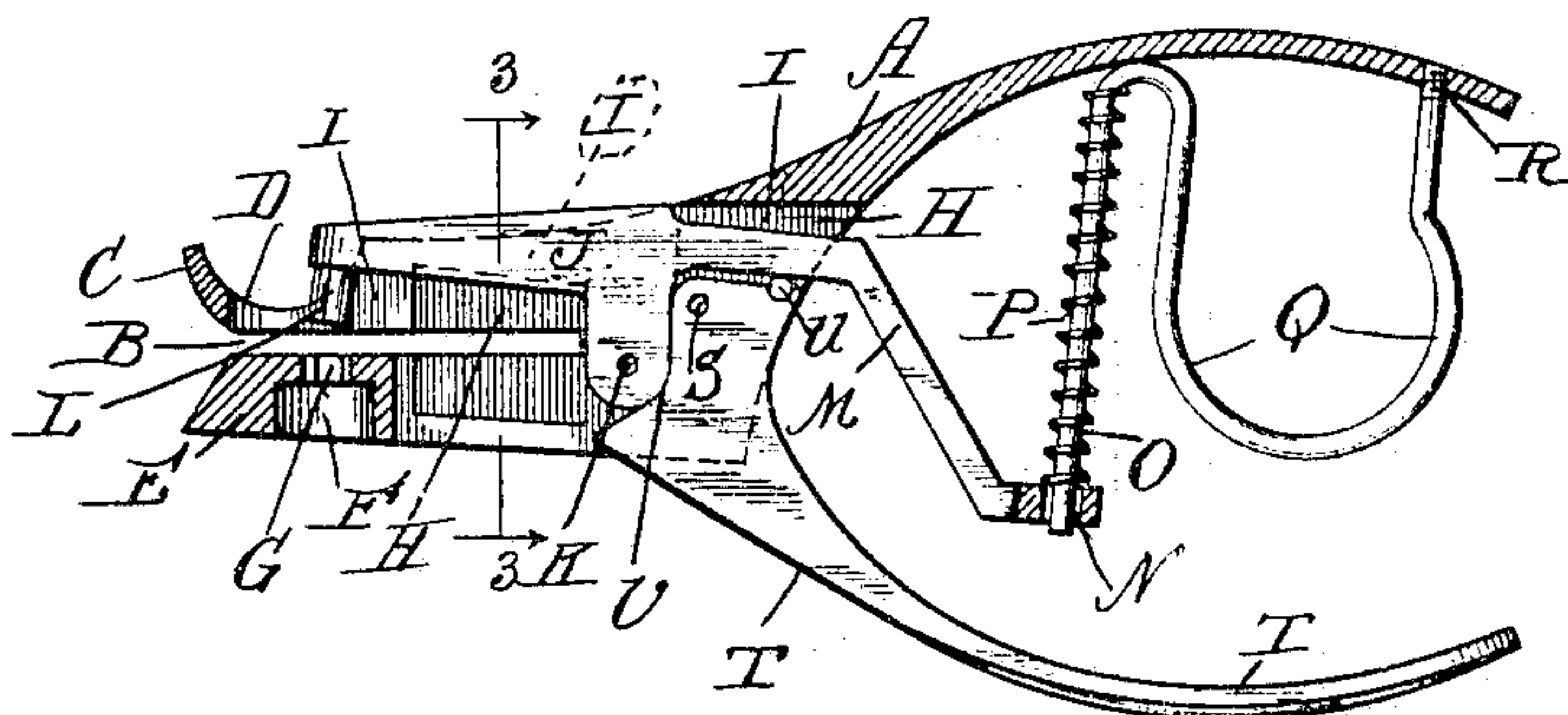


Fig. 2



Witnesses:
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UNITED STATES PATENT OFFICE.

CHARLES W. KUEN, OF CHICAGO, ILLINOIS.

TICKET-PUNCH.

SPECIFICATION forming part of Letters Patent No. 775,303, dated November 22, 1904.

Application filed October 19, 1903. Serial No. 177,658. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. KUEN, a citizen of the United States, residing at No. 421 Washburn avenue, in the city of Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Ticket-Punches, of which the following is a full and exact description and illustration.

My invention relates to that class of hand-punches used for perforating or cutting away marginal parts of tickets.

The object of my improvements is to provide a punch with a maximum of cutting power and a minimum of hand-pressure; to prevent the shearing of the male die by providing a maximum of bearing-surface for the guidance of the die, reducing the curve of its vertical movement, and by placing its pivotal point on the same plane as the cutting-surface of the female die, and to insure the release of the male die from the female die and ticket punched by direct spring-pressure on the male-die lever. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side view of the punch complete. Fig. 2 is a sectional side elevation showing the position and connection of the levers and dies with the main body of the punch, the dotted lines indicating the internal bearing-surfaces between which the levers operate. Fig. 3 is a cross-sectional view through the line 3 3, Fig. 2, looking in the direction of the arrows, showing the bearing-surfaces in which the die-lever moves.

Similar letters refer to similar parts in the several views.

A is the main part and upper handle of the punch. In and to this all other parts are attached and connected. The forward part is bifurcated at B to receive the ticket to be punched. The top jaw C has a large rounded aperture D, through which the ticket in front of the male die can be seen and be thereby adjusted as desired for cutting or perforating. In the lower jaw E is an aperture F, in which the female die G is affixed and through which the parts cut away from the ticket pass. Forming a continuation of the aperture D and beginning just back of the

aperture F is a slot H, which extends clear through the main part A. In this slot on both interior sides large bearing-surfaces I are provided, as shown by the dotted lines in Fig. 2 and in cross-section in Fig. 3. Between these bearing-surfaces a male-die lever J is fitted and pivotally secured by the pin K, on which the lever is free to be oscillated. On the front end of this lever a male die L is formed as an integral part of the lever or attached thereto. The rear part M of this lever is formed at N to receive the rod O and thrust of the spring P. The rod O is formed at Q for a finger-hold and is affixed at R in the handle of A.

Fitted into the slot H and secured therein by the pivotal pin S is a lever T, which forms the lower handle of the punch. This lever is provided with an antifriction-roller U, which is arranged to engage and form the actuating-point by which the hand-pressure is applied to the male-die lever J. This lever is so formed at V as to rest against the lever J, thereby limiting the movements of the levers J and T caused by the pressure of the spring P.

The dies G and L may be of any desired size and shape for either perforating or cutting away the margin of tickets. The pivotal points K and S and the position of the antifriction-roller U may be changed in relation as to distance from each other and to the cutting-dies in the construction of the punch.

In operation the ticket is inserted in the punch face up and may be adjusted by sight or stop arranged in the bifurcation B. The closing of the hand lifts the handle-lever T and rear part of the lever J by the contact therewith of the antifriction-roller U. This movement forces the male die L through the ticket and into the female die G. When the hand-pressure is released, the spring P forces the dies apart and returns the levers to the position of rest, as shown in Fig. 2.

The proportionally-large bearing-surfaces in the main body A permits an easy and accurate fit of the lever J and exact adjustment of the dies, while the short, direct, and powerful movements of the lever T and spring P insures ease in the cutting operation and cer-

tain release of the male die from the female die and ticket punched.

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

5 1. A ticket-punch comprising a main body A having a bifurcated end B and a die G affixed to the lower jaw E, a slot H extending through the main part A having bearing-surfaces I, a lever J pivotally supported in the
10 slot H and by the bearing-surfaces I, a spring-rod O affixed to the main part A and a spring P supported thereon, a lever T supported in the slot H, and an antifriction-roller U arranged in said lever T and forming the oper-
15 ative point of contact of said lever with the lever J, substantially as described and for the purposes specified.

2. In a ticket-punch of the kind described the combination with a main body A which
20 also forms one of the handles of said punch; of a die-carrying lever J pivotally supported in the main body A by a pin K and having a rear extension M adapted to receive a spring-rod O and to support a spring P, and an op-
25 erating-lever T forming one of the handles of said punch, pivotally supported in the main

body A by the pivot-pin S and adapted to en-
gage the lever J at V near its pivotal point,
and having a transverse groove near its point
of contact with the lever J, and an antifric- 30
tion-roller U adapted to be held in said trans-
verse groove and in contact with the rear ex-
tension of the lever J, substantially as de-
scribed and for the purposes specified.

3. In a ticket-punch, the combination of a 35
main body A and a die-carrying lever J hav-
ing a rear extension, with an operating-lever
T supported in the main body A and forming
one of the handles of said punch, said lever
having a transverse groove adapted to hold a 40
roller U, and a roller U supported in said
transverse groove, and forming the point of
contact between said lever T and the lever J,
and means for holding the levers J and T in
an open position by spring-pressure, substan- 45
tially as described and for the purposes
specified.

CHARLES W. KUEN.

Witnesses:

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