





# United States Patent Office.

JACOB BECK, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 68,687, dated September 10, 1867.

## CONDUCTOR'S TICKET-PUNCH.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, JACOB BECK, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Ticket-Punch for Conductors; and I do hereby declare the following to be a clear and exact description of the nature thereof, sufficient to enable others skilled in the art to which it appertains to fully understand and use the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a side view of the device illustrating my invention.

Figure 2 is a longitudinal vertical section of the parts of the stripper on the lower jaw.

Figure 3 is a horizontal section of the joint of the forceps.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists in applying to the stripper a spiral spring enclosed in a rubber cushion or pad, having a metallic disk on its upper side, forming a rest for the tickets, and holding the elastic cushion steadily in place; also, in the application of a coiled spring to the joint, and which shall be concealed in the joint, yet readily accessible; and in the peculiar construction of the joint, as will be hereinafter more fully described.

In the drawings, A and B represent the jaws and handles of an ordinary forceps. One jaw is provided with the ordinary stripper *a*, dropping into a corresponding opening, *b*, in the other jaw. Surrounding the stripper is a spiral spring, C, which is enclosed in a flexible pad or cushion, D. The lower end of the spiral spring is firmly secured to the jaw, and its other end is united to a disk, E, of metal or other suitable material, having a central perforation, through which the stripper will protrude. F represents the joint of the forceps, having a screw-pin or bolt, *c*, for holding the two parts together, and is circular in form, as at *d*, each jaw and handle being cut away at its inner ends, as at *d'*, to fit over the circle *d*, and have shoulders *e e'* to limit the play of the jaws. On the inner face of the joint both parts of the forceps have two concentric flanges or rings, *f g*. Their inner faces are in contact, and they move on each other while the tool is being manipulated. Around the inner flange *g* is placed a coil-spring, G. The ends of the spring are held in suitable openings *h* in the circular part of the joints. The spring is thus encased in the joints of the forceps, but is readily applied and removed. It is entirely out of the way of the operator, and is less liable to get out of order. The jaws will always be opened for the application of the ticket to the stripper. When pressure is applied to the handles, the jaws will be brought together, and the ticket resting on the metallic disk will be pierced by the stripper, which enters the opening in the other jaw as the disk E, spiral spring C, and flexible pad D are depressed. When the conductor has punched the ticket and releases the handles from pressure, the jaws will immediately open, and the springs *c d* assuming their original position will force the ticket upwards as the stripper moves with its jaw and returns to its place below the disk E, thus entirely freeing the ticket, allowing its withdrawal without any impediments from the stripper. The disk E, while forming a seat for the ticket, will steady the motions of the flexible pad and spiral spring, making them uniform during expansion and contraction, besides preventing the end of the spring from coming in contact with the ticket. The screw-pin or bolt *c* is merely intended for holding the two parts of the punch together. Nearly all the friction of the joint will be on the flanges *f g*, thus the pin is less liable to work itself loose than it would if all the bearing of the joint were on it. Besides this, the two rings form a chamber for the reception of the coil spring. I thus construct a punch, simple, durable, and practicable, all parts of which are easily made and readily applied and removed.

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

1. The concentric bearing-rings or flanges *f g* of the joint F, substantially as described for the purpose specified.
2. The enclosed coiled spring G of the joint F, substantially as described for the purpose specified.
3. The seat E, in combination with the spring C, substantially as described for the purpose specified.
4. The spiral spring encircling the stripper *a*, substantially as and for the purpose described.
5. The construction of the joint, consisting of the circular parts *d* and corresponding parts *d'* of the jaws and handles, substantially as described.
6. The combination of the flexible cushion D and spring C, applied to the stripper *a*, substantially as described for the purpose specified.

To the above I have signed my name this fourteenth day of May, 1867.

JACOB BECK.

Witnesses:

J. S. GORFNEY,

WM. T. KENNEDY.