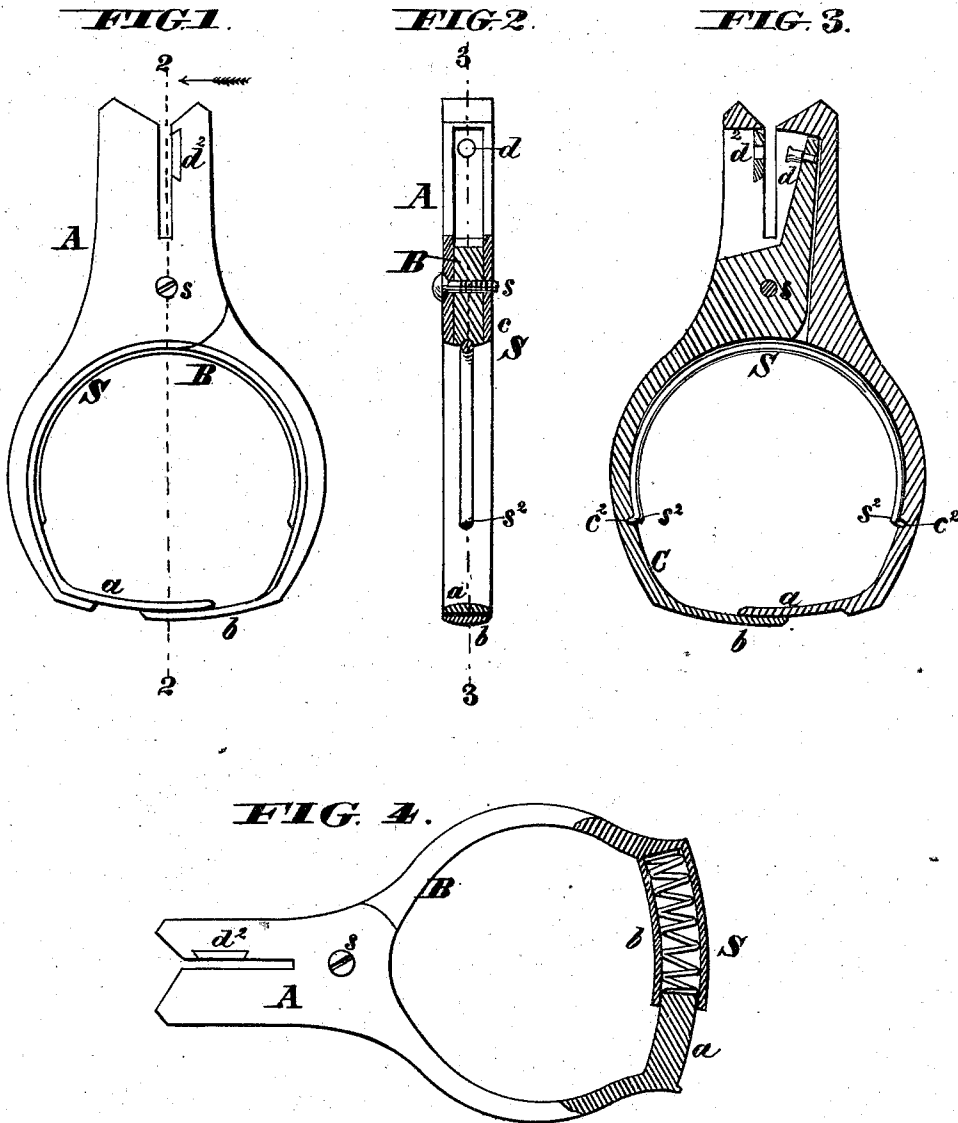


E. J. BROOKS.
Punch.

No. 165,062.

Patented June 29, 1875.



WITNESSES
Chas. J. Gooch
W. H. Pearce

INVENTOR
Edward J. Brooks
By *Knight Bros* Attorneys

UNITED STATES PATENT OFFICE.

EDWARD J. BROOKS, OF NEW YORK, N. Y.

IMPROVEMENT IN PUNCHES.

Specification forming part of Letters Patent No. **165,062**, dated June 29, 1875; application filed June 15, 1875.

To all whom it may concern:

Be it known that I, EDWARD J. BROOKS, of the city, county, and State of New York, have invented a new and useful Improvement in Hand-Punches, of which the following is a specification:

This invention relates to punches of plier shape, for the use of conductors and others, for canceling, marking, or altering railway-tickets, drafts, &c., and for perforating tags, and the like.

The present invention consists, first, in a peculiar construction of the handles, serving to form the handles of each punch into a single large loop, by which to suspend the punch with superior convenience while out of use. The invention consists, secondly, in a peculiar construction and arrangement of the springs, whereby they are adapted to be readily and cheaply manufactured, their accidental displacement is precluded without the aid of special fastenings, and the spring of each improved punch is caused to co-operate with the handle-extensions in their most simple shape, to form an unobstructed large suspension-loop, as hereinafter set forth.

Figure 1 is an elevation of a conductor's punch, illustrating this invention. Fig. 2 is a section on the line 2 2, Fig. 1. Fig. 3 is a section on the line 3 3, Fig. 2. Fig. 4 is a sectional elevation of another punch, illustrating a modification.

This improved punch, in common with others, is composed of two principal parts, A B, which may be brass or iron castings, and a single spring, S, with a pair of dies, d d^2 , and a pivotal screw, s . Each of the parts A B comprises a handle and a die-carrying jaw, and, in the illustrations, one part, A, forms also a shield for the jaw carrying the male die or punch proper d , and a mouth of proper shape to receive and support the ticket, for example, in which a perforation is to be made, as in other punches. To form a convenient large loop by which to suspend the punch

while out of use, curved inward extensions a b are formed on the respective handles, so as to overlap and slide on each other without ever becoming separated.

The spring S, in spiral form, may be arranged within the handle-extensions a b , the latter (one or both) being tubular, and adapted to slide one within the other, as illustrated in Fig. 4.

In the preferred form, illustrated in Figs. 1, 2, and 3, the handle-extensions are flat, and simply overlap, and the spring S is made of C-shape, and is arranged within a groove, c , formed in the inner surfaces of the handles, as shown. It is held in place by projections s^2 s^2 at its extremities, occupying corresponding indentations c^2 in the bottom of the groove c . It is preferably round in section, and tapers to its ends; but these features are not considered essential.

The curved spring operates in superior manner to open the jaws, and it coacts with the handle-extensions to form a large clear loop, by which to suspend the punch while not in use, which is very superior to a contracted hook or a loop formed by the spring, as in other punches.

The following is claimed as new, namely:

1. A hand-punch, having its handles formed into a closed suspension-loop, by overlapping extensions of the same, substantially as herein illustrated and described.

2. A hand-punch, with overlapping extension-handles, provided upon their inner surfaces with grooves and indentations, as shown, for the purpose set forth.

3. In combination with the overlapping extension-handles, provided with grooves and indentations, as shown, the spring S, for the purpose stated.

EDWARD J. BROOKS.

Witnesses:

ALLAN LEE SMIDT,
SOLOMON A BARBANELL.