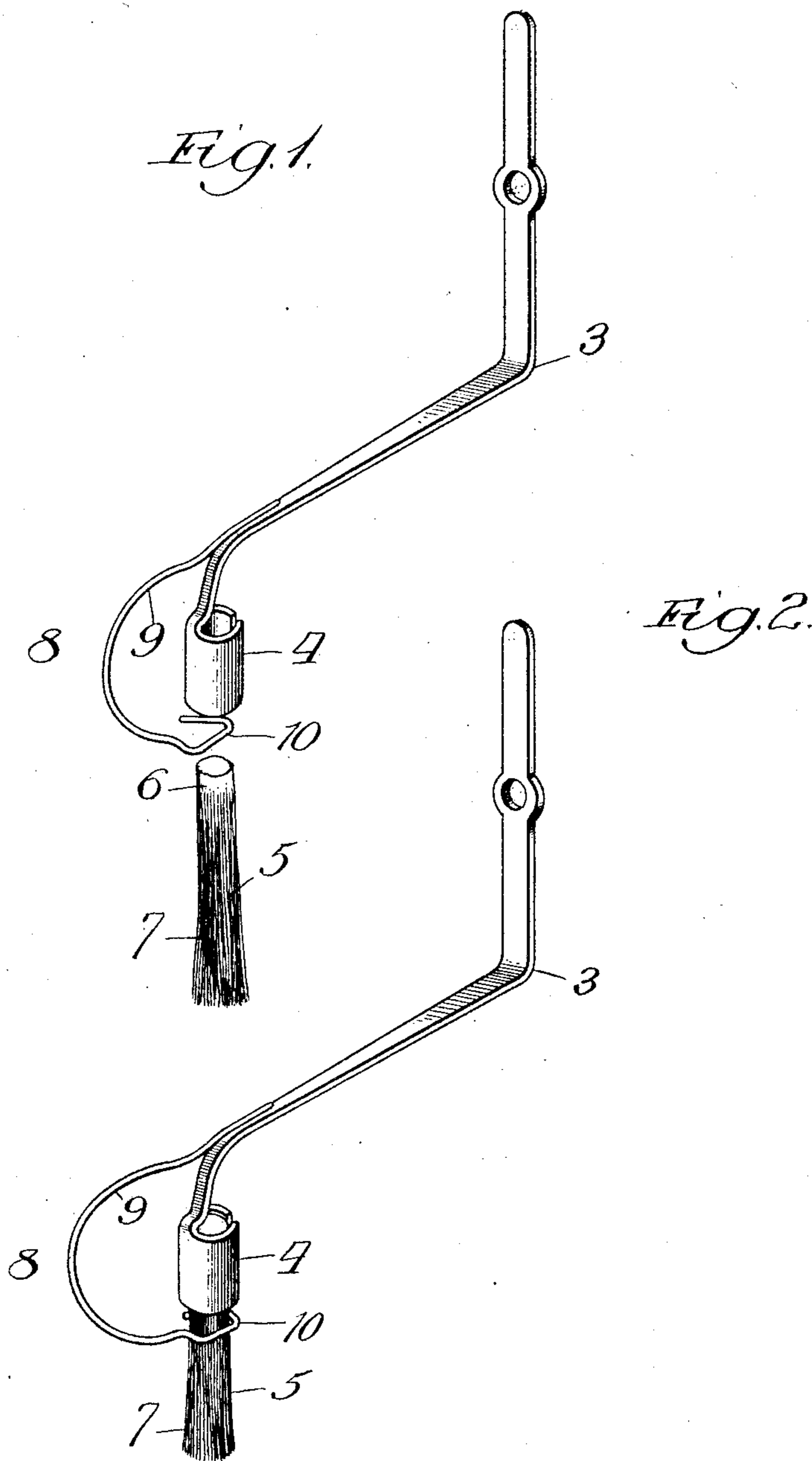


No. 859,524.

PATENTED JULY 9, 1907.

H. K. SANDELL.  
ELECTRICAL CONTACT FINGER.  
APPLICATION FILED JAN. 21, 1907.



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# UNITED STATES PATENT OFFICE.

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## ELECTRICAL CONTACT-FINGER.

No. 859,524.

Specification of Letters Patent.

Patented July 9, 1907.

Application filed January 21, 1907. Serial No. 353,320.

*To all whom it may concern:*

Be it known that I, HENRY K. SANDELL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and  
5 useful Improvement in Electrical Contact - Fingers, of which the following is a specification.

My invention relates to an improvement in the class of electrical contact-fingers, such as are employed in connection with electrical self-playing instruments,  
10 to close the circuit by engaging, through perforations in a traveling music-sheet, with an electrical contact-roller across which the sheet move. This variety of contact-finger usually involves a socket on one end for holding a bunch of fine wires, forming the contact-  
15 ing element of the device, which is removably fastened in the socket by means of a set-screw.

The object of my invention is to enable the set-screw fastening medium for the bunch of contact-wires to be dispensed with because it is unhandy to manipulate,  
20 for loosening a bunch to permit it to be withdrawn, as when it is worn, and for fastening a new bunch in place in the socket. To this end I provide on the finger a spring catch adapted to engage at its free end releasably with the wire-bunch in the socket adjacent to an  
25 end of the latter and exert lateral pressure against the bunch to bind its stem-portion against the inner socket-wall, and thus hold the bunch in place.

In the accompanying drawing, Figure 1 is a perspective view of the device, greatly exaggerated in  
30 size, with the contact-member proper disconnected and the spring catch in its normal position under that condition of the device; and Fig. 2, a similar view of the same with the contact-member proper in position in the socket and engaged by the spring catch.

35 The body 3 of the contact-finger is a thin strip of metal, preferably spring-metal and bent to the shape represented, terminating at one end in a socket 4, to receive the contacting element 5, in the form of a plurality of fine short wires bunched together into a soldered stem-portion 6 to enter the socket and leave pro-

truding beyond an end of the latter the brush-like section 7. On the strip 3 is fastened, as by soldering, one end of the retaining-catch 8, the preferred form of which is that shown of a bent spring-wire 9 terminating at its free end in a hook or loop 10. This hook normally extends in the path of insertion of the element  
45 5 into the socket, as represented in Fig. 1, so that to permit the insertion the spring 8 requires to be deflected to register the hook with the insertion-end of the socket; and when the stem-portion 6 has been introduced into the socket, the spring is released to permit it to return toward its normal position, in doing which the hook encounters the inserted member, as represented in Fig. 2, and exerts sufficient lateral pressure against it to bind its stem-portion against the inner  
50 socket-wall and hold the contact-bunch in place. The element 5 is thus very easily withdrawable, as when it becomes worn, for replacement by a new one, since all that is required for the purpose is to deflect the catch to the described alining position for permitting the insertion, whereby its binding action on  
55 the bunch is released.

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

1. In an electrical contact-finger, the combination of a  
65 body having a socket on one end, a member consisting of a bunch of wires removably inserted into said socket to protrude beyond the same, and a spring catch releasably engaging said bunch adjacent to the socket and exerting lateral pressure against the bunch to bind the stem-portion against the inner socket-wall, for the purpose set forth.

2. An electrical contact-finger comprising, in combination, a metal strip provided on one end with a socket, a spring catch fastened to said strip and terminating at its  
70 free end in a loop at the insertion-end of said socket and normally obstructing said insertion-end, and a contact-member consisting of a bunch of wires removably inserted into said socket and engaged by said loop, for the purpose set forth.

HENRY K. SANDELL.

In the presence of—

A. U. THORIEN,  
C. W. WASHBURN.