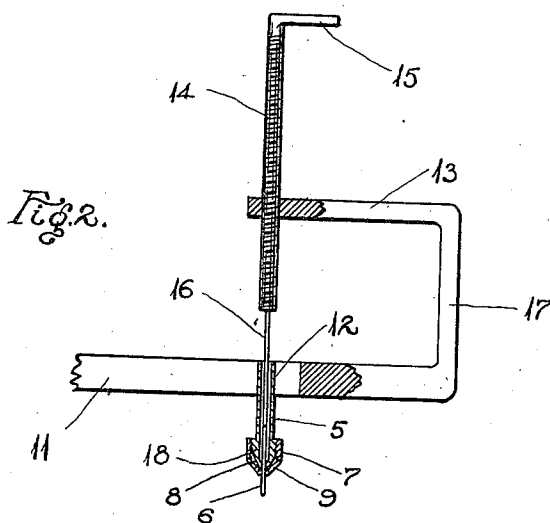
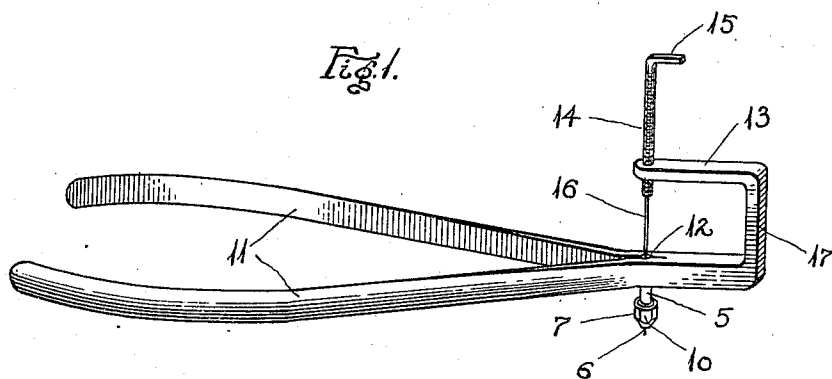


F. RECHENBERG.  
TOOL FOR GRAPHOPHONE NEEDLES.  
APPLICATION FILED MAY 2, 1910.

991,020.

Patented May 2, 1911.



Witnesses:

Monroe E. Miller.

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# UNITED STATES PATENT OFFICE.

FREDERICK RECHENBERG, OF CLEVELAND, OHIO.

TOOL FOR GRAPHOPHONE-NEEDLES.

991,020.

Specification of Letters Patent.

Patented May 2, 1911.

Application filed May 2, 1910. Serial No. 558,837.

*To all whom it may concern:*

Be it known that I, FREDERICK RECHENBERG, subject of the Emperor of Germany, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Tools for Graphophone-Needles, of which the following is a specification.

This invention is a special tool designed particularly for use in connection with an improved needle for the reproducer of a graphophone or the like, and has for its object to provide a device for adjusting a needle in its holder.

It is common in so-called talking machines to have a solid needle which is placed in a holder forming a part of the reproducer or sound box, and for various reasons such needles can be used only once. The needle referred to herein can be used repeatedly, and in order that it may be so used, I provide the improved tool for adjusting it in its holder to desired or proper position.

In the accompanying drawings, Figure 1 is a perspective view of the tool with the needle in place therein. Fig. 2 is a sectional view.

Referring specifically to the drawings, 6 indicates a needle which consists of a piece of fine wire, fitting within the lower end of a sleeve 5. The lower end of this sleeve is split and is provided with external threads 18, and is tapered externally as at 8. A nut 7, having flattened sides 10 to receive a wrench, has an inner beveled shoulder 9 to engage the tapered end 8 of the sleeve, and when the nut is screwed on the sleeve the needle is clamped therein by the bevel closure action of the nut.

It is desirable or necessary to adjust the needle to desired position in the sleeve, and in order that this may be done accurately and conveniently, I provide a tool of what may be called the tweezers type, having spring handles 11 projecting from a solid stock, with a socket 12 between the handles or members to receive the sleeve when said

handles are slightly sprung apart. The end of the stock of the tool opposite to the handles has an upright member 17 and a backwardly projecting member 13, forming a bracket or support for a screw 14 which extends through a cap hole in the end of the arm 13, directly in line with the socket 12. At the point of the screw 14 is a reduced finger or rod 16, small enough to enter the bore of the sleeve 5, and the head of the screw has a finger piece 15 whereby it may be turned.

In the use of the tool the needle and its sleeve are set in the socket as shown, and the nut 7 eased off slightly to loosen the needle. The screw 14 is then turned to advance the finger 16 against the needle 6, which is thereby forced out to the desired extent, after which it may be fastened by tightening the nut 7. During this operation the needle and its sleeve are held by slight pressure on the handles 11. In devices of this kind a very fine adjustment is necessary, and the tool described enables it to be made with ease and convenience, so that as fast as the needle becomes worn it can be set out to take up the wear, whereby it can be used repeatedly, instead of having to be thrown away as with ordinary solid needles.

What I claim as new is:—

A tool comprising a pair of spring handle members joined at their front ends and forming a solid stock, said members having a socket therebetween adjacent said stock, and extending at their rear ends to form opposite handles, and a support projecting from the front end of said stock and over-hanging the socket, and adapted to support an instrument in position for operation on work held in said socket.

In testimony whereof, I affix my signature in presence of two witnesses.

FREDERICK RECHENBERG.

Witnesses:

E. M. BOWDEN,  
S. J. ROCKWELL.