K. I. FINNEY.

FINGER EXERCISING DEVICE.

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1,256,004. Patented Feb. 12, 1918.

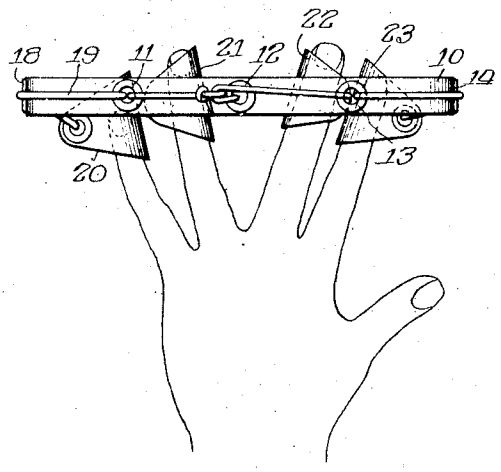


Fig. 1

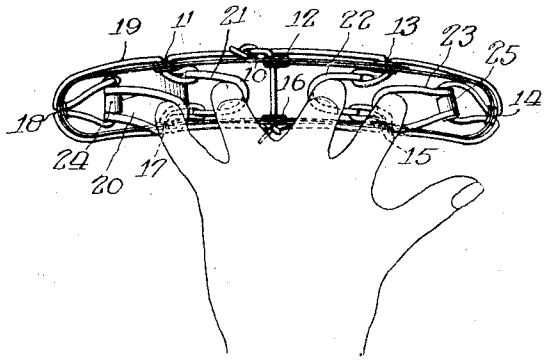


Fig. 2

Fig. 3

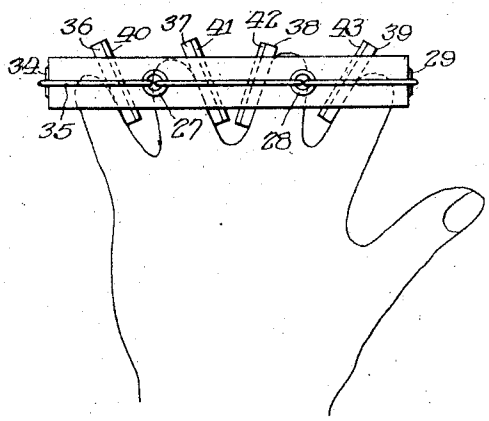
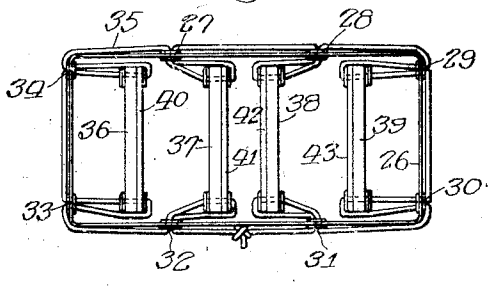


Fig. 4



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FINGER-EXERCISING DEVICE.

1,256,004. Specification of Letters Patent. Patented Feb. 12, 1918.

Application filed June 5, 1916. Serial No. 101,668.

To all whom it may concern:

Be it known that I, KNUTE I. FINNEY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Finger-Exercising Devices, of which the following is a specification.

My invention relates to an improved mechanism for exercising, strengthening and stretching the fingers. It is particularly intended for the use of musicians, such as pianists and violinists, who find it desirable to increase the stretch and strength of the fingers. Furthermore, my mechanism is under such control of the operator at all times as to practically prevent the possibility of injuring the fingers or hand, and provision is made for adjusting the device to suit hands of different size and to increase the amount of strength of the fingers as the hand responds to the treatment.

The several drawings illustrate preferred embodiments of my invention, in which—

Figure 1 shows the finger stretching device in position in plan view on the outstretched fingers of the hand.

Fig. 2 shows the same view of the hand as in Fig. 1 with the fingers flexed thus showing a side view of the device.

Fig. 3 shows in a view similar to Fig. 1 the invention embodied in a device for stretching the knuckles of the hand and,

Fig. 4 shows a side view of the device illustrated in Fig. 3 removed from the hand.

Similar numerals refer to similar parts throughout the similar views.

As shown in Figs. 1 and 2 the device consists of a metallic band 10 having slightly curved and substantially parallel side members located at such a distance apart as to permit the fingers to be readily inserted between said side members. These side members are connected at their ends by rounded end portions of the band so that the supporting and retaining structure of the device is continuous and of sufficient rigidity to stand any strains that may be brought to bear upon it. The band 10 has inserted through it at intervals the eyelets 11, 12, 13, 14, 15, 16, 17 and 18, through which a cord 19 is passed, as indicated through the ends of the pockets or loops 20, 21, 22 and 23, which pockets or loops are made preferably from fabric such as felt to receive the four fingers of the hand in substantially the manner indicated in Fig. 1. In this position the fingers are stretched away from each other somewhat but not uncomfortably so, and by the act of flexing the fingers into the position shown in Fig. 2 added strain is brought to bear upon the finger joints and knuckles of the hand tending to stretch or separate the joints and knuckles somewhat. The ends of the pockets or loops 20, 21, 22, and 23 are preferably provided with eyelets through which the cord 19 passes, and the end loops 20 and 23 are preferably provided with spacers 24 and 25, of any suitable material to keep the loops or pockets in open position for insertion of the fingers. It will be observed that the tendency of the device when the fingers are flexed is to bring the end portion of the fingers into parallel relation to each other, which accounts for placing the added strain on the joints and knuckles by the flexing of the fingers.

It has been found that the use of the device materially increases the distance between the fingers thus increasing the possible reach of the fingers which is of great importance particularly for relatively rigid hands in providing the necessary reach for piano and violin playing. The effect of the device is also to materially strengthen the fingers and hand.

In the modified construction shown in Figs. 3 and 4 the frame of the device is of a rectangular form and consists of a band of metal 26, through which eyelets 27, 28, 29, 30, 31, 32, 33 and 34 extend, and through which eyelets a cord 35 is passed, as indicated through the ends of the finger supports 36, 37, 38 and 39.

These supports are preferably of material such as felt provided with stiffening backing pieces 40, 41, 42 and 43 secured to the supports by eyelets extending through their end portions for receiving the cord 35 in the manner indicated. The backing pieces may be made of any suitable material, such as hard fiber or rubber and are merely for the purpose of maintaining the finger supports in substantially flat condition.

In using this embodiment of my invention the fingers of the hand are first flexed, as indicated in Fig. 3, so that the first two joints of each finger in bent condition are

placed against the finger supports in the manner indicated in Fig. 3,—the third joint of each finger being substantially in the plane of the hand. The third joints of the fingers are then flexed relatively to the hand with the result that there is a tendency to increase the distance between the knuckles of the hand.

The framework of either of the devices may either be a continuous band of metal as indicated or it may be formed from a number of pieces of metal fastened together in any well-known way such as by soldering or riveting or by the eyelets themselves. The finger supports in connection with either device may readily be adjusted to the right distance apart by means of the cords 19 and 35 respectively, and when the hand has responded to treatment with one adjustment the finger supports may be separated somewhat so as to still further stretch or separate the fingers and stretch the hand.

Another important advantage of my invention is that it is compact and may readily be taken by a musician from one place to another, and in fact may easily be carried in the pocket so as to be available for use at any time and place that the opportunity is afforded.

While I have shown my invention in the particular embodiments above described I do not limit myself in the following claims to these precise structures, as I may employ equivalent devices in carrying out my invention, which is realized by any arrangement of parts for engaging the fingers so as to tend to separate them by the action of flexing the fingers.

What I claim is:

1. In a finger exercising device, the combination of a framework, and finger-holds carried by the framework for supporting the same on the fingers, said finger-holds receiving the fingers in separated relation, whereby the device is carried by the fingers to maintain them in separated relation during the flexing of the fingers.

2. In a finger exercising device, the combination of a framework, finger-holds carried by the framework for supporting the same on the fingers, said finger-holds receiving the fingers in separated relation, whereby the device is carried by the fingers to maintain them in separated relation during the flexing of the fingers, and means connecting said supports to said framework and permitting said supports to be held by said framework at different distances apart.

3. In a finger exercising device, the combination of a framework, and finger-holds carried by the framework for supporting the same on the fingers, said finger-holds receiving the fingers in separated relation, whereby the device is carried by the fingers to maintain them in separated relation during the flexing of the fingers, said supports comprising yieldable material to afford comfortable engagement with the fingers.

4. In a finger exercising device, the combination of a framework, supports carried by the framework for receiving the fingers in separated relation, whereby the device is carried by the fingers to maintain them in separated relation during the flexing of the fingers, said supports comprising yieldable material to afford comfortable engagement with the fingers, said supports having holes through them near their ends and said framework having holes formed therethrough, and a cord extending through the supports and said framework to hold said supports in desired adjustment.

5. In a finger exercising device, the combination of a framework, supports carried by the framework for receiving the fingers in separated relation, whereby the device is carried by the fingers to maintain them in separated relation during the flexing of the fingers, said supports comprising yieldable material to afford comfortable engagement with the fingers, said supports having holes through them near their ends and said framework having holes formed therethrough, a cord extending through the supports and said framework to hold said supports in desired adjustment, and eyelets in the holes in the supports and framework.

6. In a finger exercising device, the combination of a framework, and supports carried by the framework for receiving the fingers in separated relation, whereby the device is carried by the fingers to maintain them in separated relation during the flexing of the fingers, said supports comprising yieldable material in loop form to afford comfortable engagement with the fingers.

7. In a finger exercising device, the combination of a framework, supports carried by the framework for receiving the fingers in separated relation, whereby the device is carried by the fingers to maintain them in separated relation during the flexing of the fingers, said supports comprising yieldable material in loop form to afford comfortable engagement with the fingers, said supports having holes through them near their ends and said framework having holes formed therethrough, and a cord extending through the supports and said framework to hold said supports in desired adjustment.

8. In a finger exercising device, the combination of a frame work, supports carried by the framework for receiving the fingers in separated relation, whereby the device is carried by the fingers to maintain them in separated relation during the flexing of the fingers, said supports comprising yieldable material in loop form to afford comfortable engagement with the fingers, said supports having holes formed therethrough, a cord

extending through the supports and framework to hold said supports in desired adjustment, and eyelets in the holes in the supports and framework.

9. In a finger exercising device, the combination of a framework, finger-holds carried by the framework for supporting the same on the fingers, said finger-holds receiving the fingers in separated relation, whereby the device is carried by the fingers to maintain them is separated relation during the flexing of the fingers, and stiffening plates connected with said supports.

In witness whereof, I hereunto subscribe my name this 29th day of May, A. D. 1916.

KNUTE I. FINNEY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."