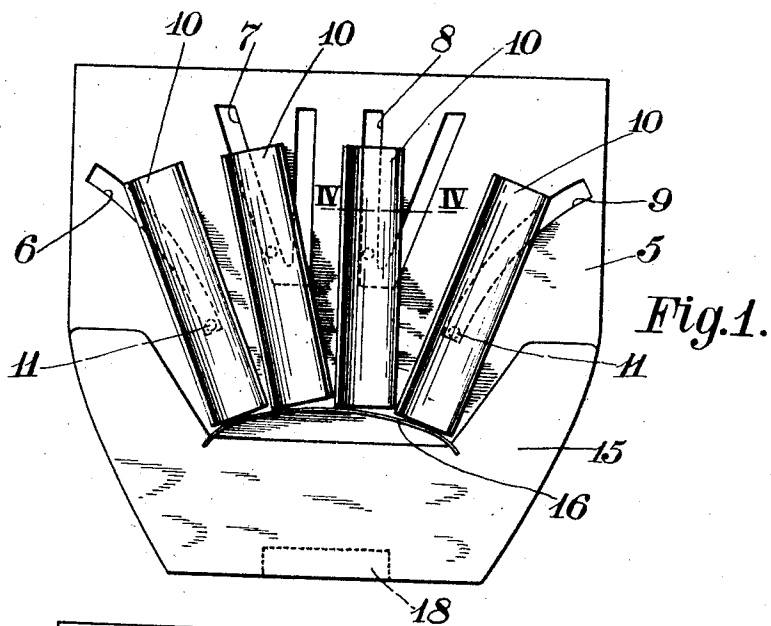
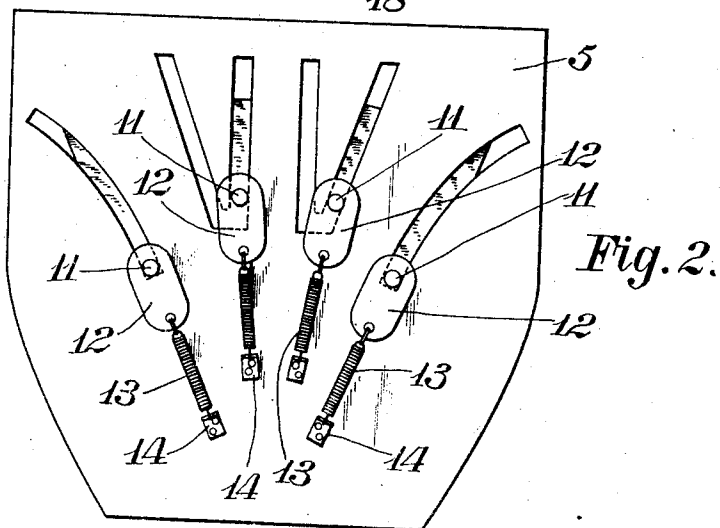
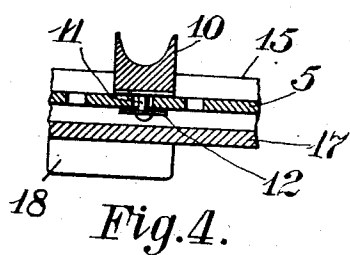
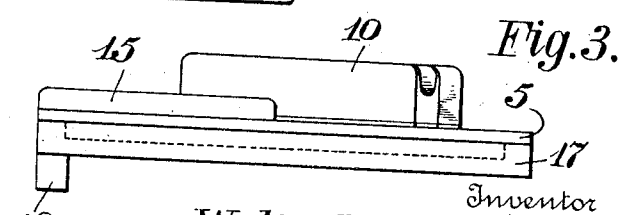


W. H. HILL.
FINGER EXERCISING DEVICE.
APPLICATION FILED OCT. 30, 1918.

1,301,560.

Patented Apr. 22, 1919.



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UNITED STATES PATENT OFFICE.

WALTER H. HILL, OF COLUMBUS, OHIO.

FINGER-EXERCISING DEVICE.

1,301,560.

Specification of Letters Patent.

Patented Apr. 22, 1919.

Application filed October 30, 1918. Serial No. 260,270.

To all whom it may concern:

Be it known that I, WALTER H. HILL, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Finger-Exercising Devices, of which the following is a specification.

The object of this invention is to provide an improved device for exercising the fingers or hand and more particularly the webs between the fingers and the proximal joints. Such devices are especially useful to pianists, organists and players of stringed instruments where wide separation of the fingers and flexibility of the joints is important in the proper execution of music.

The invention is embodied in the example shown in the accompanying drawing and set forth in the following description, the features of novelty being finally claimed.

In said drawings—

Figure 1 is a top plan view of the apparatus.

Fig. 2 is a plan view of the lower side of the upper plate or bed of the structure.

Fig. 3 is an edge view looking at the right hand side of the apparatus as shown in Fig. 1.

Fig. 4 is a transverse section on the line IV—IV Fig. 1.

In the views 5 designates the top plate or bed which can conveniently be of metal, aluminum for example. This plate is made with through slots 6, 7, 8 and 9, the slots 6 and 9 being slightly curved, while the slots 7 and 8 are of V-form. All the slots except the adjacent branches of the middle or V-shaped slots are forwardly divergent. Placed on the upper side of the plate 5 are four finger rests 10 each conveniently substantially identical in form, being longitudinally grooved at their upper sides to receive the several fingers of either hand. Each of the finger rests 10 has a pin 11 that extends through its subjacent slot, said pin being connected with a small plate 12 at the lower side of the bed 5. The small plate 12 of each finger rest holds that member in position on the plate and also serves to receive one end of a coil spring 13, the other end of said spring being connected with a small bracket 14 secured to the lower side of the plate 5. The springs 13 are of such length and tension as normally to hold the finger rests drawn rearward, or toward the user. Secured

to the upper side of the plate 5 is a wooden palm rest 15 and seated in the middle of this is a forwardly bowed leaf spring 16 against which the rear ends of the finger rests normally abut. The lower side of the bed 5 is provided with a suitable cover 17 to inclose the mechanism there and prevent interference with or injury to it. The rear portion of the apparatus is furnished with a stop 18 to hold the apparatus at the edge of a table when in use.

In use the several digits of the hand to be exercised are placed in the finger rests and pressed back and forth and because the slots are divergent they tend to guide the finger rests in divergent directions thereby increasing the separation of the rests and fingers when they are pressed forward. The effect of this operation is to stretch the webs between the fingers and when the exercise is persisted in tends to permanently widen the webs between the fingers. The finger rests, however, have some pivotal action and accommodate themselves to the position of the fingers as they are pressed forward. A greater stretching effect on a web between any two adjacent fingers can be obtained by shifting the pin 11 to travel in the appropriate branch of the V-shaped slot and this is accomplished by pressing the finger rest rearward against the leaf spring 16 and then shifting it to the right or left until its guiding pin 11 is in the proper branch. The pin of a finger rest is held in the branch of the spring 16 until intentionally reshifted.

The repeated pressing of the finger rests forward in the proper use of the apparatus causes an oscillation of the hand at the proximal joints thereby also exercising them and increasing their flexibility.

The forms of the parts can be varied without departing from the gist of the invention.

What I claim is—

1. A finger spreader including, in combination, a bed piece, finger rests supported thereon and reciprocable substantially in the direction of the length of the fingers, guiding means for said rests, and means whereby the operative angular relation of the reciprocations of said finger rests to each other may be varied.

2. A finger spreader including, in combination, a bed piece provided with guiding slots, said slots including a slot of V-form, and finger rests provided with guiding pins

extending into said slots, the guiding pin of the V-slot being shiftable into either branch of said slot.

3. A finger spreader including, in combination, a bed piece provided with guiding slots, said slots including a slot of V-form, finger rests provided with guiding pins extending into said slots, the guiding pin of the V-slot being shiftable into either branch of said slot, and springs holding said rests in a normal rearward position.

4. A finger spreader including, in combination, a bed piece provided with guiding slots, said slots including a slot of V-form, finger rests provided with guiding pins ex-

tending into said slots, the guiding pin of the V-slot being shiftable into either branch of said slot, springs holding said rests in a normal rearward position, and a separate spring for holding said pin normally advanced in one of the branches of said slot of V-form.

5. A finger spreader including, in combination, a bed piece provided with four guiding slots, the intermediate of said slots being of V-form, and finger rests provided with guiding pins extending into said slots, the guiding pin of each of the V-slots being shiftable into either branch of the slot.

WALTER H. HILL.

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