

No. 826,879.

PATENTED JULY 24, 1906.

F. PÉLISSIER.
EXERCISING DEVICE.
APPLICATION FILED OCT. 27, 1905.

Fig. 1

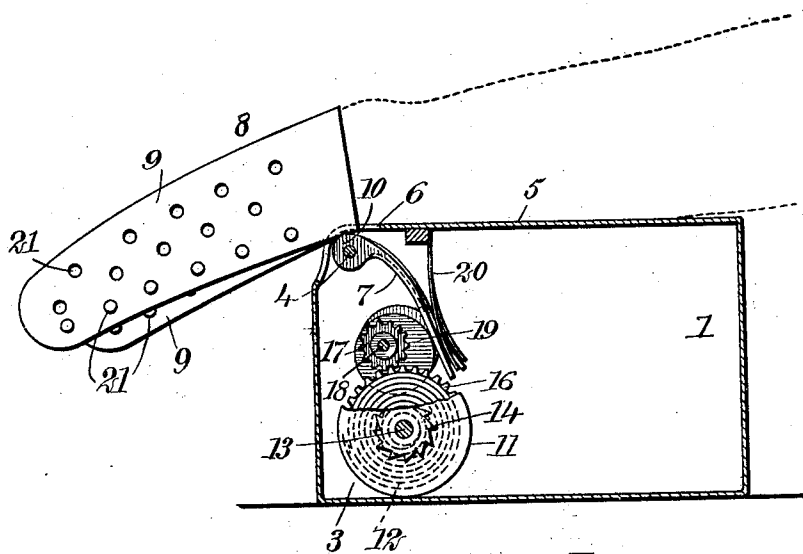
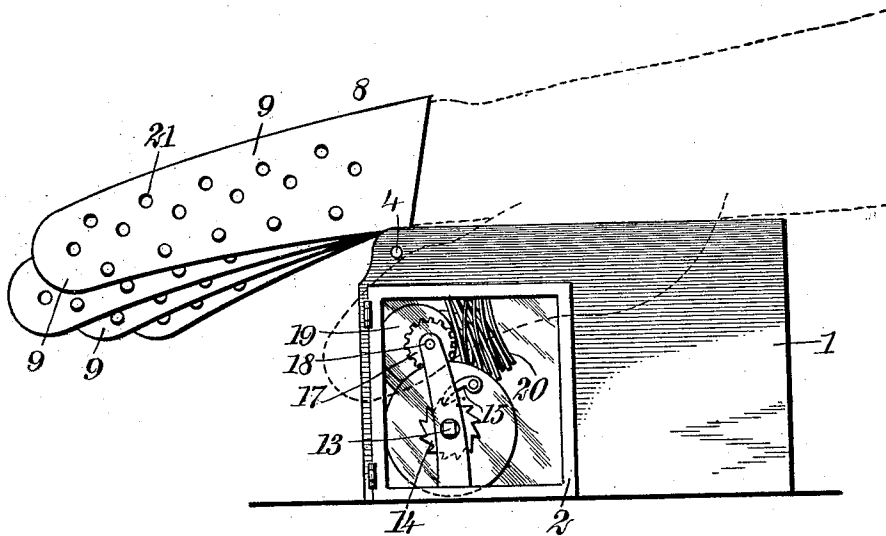


Fig. 2

WITNESSES:

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FÉNELON PÉLISSIER, OF GONAIVES, HAITI.

EXERCISING DEVICE.

No. 826,879.

Specification of Letters Patent.

Patented July 24, 1906.

Application filed October 27, 1905. Serial No. 284,650.

To all whom it may concern:

Be it known that I, FÉNELON PÉLISSIER, a citizen of the Republic of Haiti, and a resident of Gonaives, Haiti, West Indies, have invented a new and Improved Exercising Device, of which the following is a full, clear, and exact description.

This invention relates to exercising devices; and it is intended especially to be used by musicians for the purpose of manipulating the knuckles so as to increase their flexibility.

The object of the invention is to produce a device of this class which is of simple construction and which will afford means for giving the fingers of the hand a movement at the joint and to provide such arrangement as will enable various relations between the movements to be produced.

The invention consists in the construction and combination of parts to be more fully described hereinafter and definitely set forth in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both the figures.

Figure 1 is a side elevation of the device, showing how it is applied to one's hand; and Fig. 2 is a vertical section through the case of the apparatus and illustrating the arrangement of the mechanism within the same.

Referring more particularly to the parts, 1 represents the casing, preferably having substantially the form of a rectangular box, the same being provided with a glass door 2, adapted to be opened so as to give access to the mechanism 3 within the case. In the upper portion of the case 1, and preferably at one corner, a transverse shaft or arbor 4 is arranged, which is fixed in the side walls of the case, as will be readily understood. It should be understood that this shaft extends transversely of the case, as shown, and is disposed near the upper wall or cover 5 thereof, as indicated. At the corner where this shaft 4 is arranged openings or slots 6 are provided in the cover. Loosely mounted upon the shaft 4 I provide a plurality of arms 7, which project downwardly into the interior of the case, as shown most clearly in Fig. 2. To the hubs of these arms, which attach to the shaft, a glove 8 is attached, the same consisting of a plurality of sleeves or fingers 9, which are adapted to receive the

fingers of one's hand. These fingers 9 are attached, respectively, to the arms 7 by means of pins 10, which pass through the aforesaid slots 6.

It should be understood that the hand of the person using the device will be applied as indicated in Fig. 1, the body of the hand resting upon the case 1, as shown, so that the main knuckles or joints at which the fingers articulate with the hand will be located substantially above the shaft 4.

Within the case 1 the mechanism 3 affords means for actuating the fingers 9 individually, so that they will rock up and down upon the shaft 4 as an axis. This mechanism 3 preferably comprises a spring-barrel 11, in which there is mounted a suitable spring 12, the same being disposed about a winding-arbor 13. Upon this winding-arbor there is a rigid detent ratchet-wheel 14, with which coöperates a detent-pawl 15, enabling the spring to be wound in a well-known manner. The shaft 18 carries rigidly a gear-wheel 16, and this gear-wheel meshes with a corresponding pinion 17, disposed thereabove, the said pinion being rigidly mounted upon a transverse shaft or axle 18, mounted in the casing, as shown. I provide a plurality of cams 19, rigidly attached to the shaft 13, and against the faces of these cams the aforesaid arms 7 respectively rest. The arms 7 are held against the faces of the cams, preferably by means of leaf-springs 20, suitably mounted in the casing, as indicated. From this arrangement it should be understood that when the spring 12 is wound up and the mechanism set in motion the rotation of the gear-wheel 16 will bring about a rotation of the cams 19, carried thereby. These cams will actuate the arms 7, so as to rock them upon the shaft 4, as will be readily understood. This movement is of course transmitted to the fingers 9 individually, which are rocked up and down upon the same axis. In this way all the fingers of the hand will be given an exercise consisting of a movement at the knuckles.

The fingers 9 of the glove 8 are preferably formed of light sheet metal or similar material, and they are preferably provided with perforations 21, which facilitate the circulation of air, so as to prevent the fingers from becoming heated during the exercising operation.

While the invention is intended to be especially useful for musicians, such as piano

players, it is thought to be of utility also for exercising the hands of paralytics or persons whose hands have been attacked by numbness or stiffness at the joints.

- 5 It will be seen that with the apparatus described above the fingers may be given immediately a rapid movement which could ordinarily only be attained by many hours spent in practicing finger exercises, and it
10 will be apparent that with this mechanism the period spent in exercising for the purpose stated will be much reduced, making the tedious preliminary exercises much more attractive to the musical aspirant.
15 Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A device of the class described having a glove adapted to receive the fingers of one's
20 hand, the fingers of said glove being movably mounted upon an axis, levers adapted to rock said fingers of said glove, a plurality of cams affording means for rocking said levers, and means for actuating said cams.

25 2. A device of the class described having a shaft, arms having eyes pivotally mounted upon said shaft, members adapted to receive the fingers of one's hand, secured to said arms, a second shaft, cams mounted
30 upon said second shaft and adapted to rock said arms, springs adapted to hold said arms

in contact with said cams, and means for actuating said cams.

3. A box presenting a supporting-surface for one's hand and having an opening, a plurality of fingers mounted to rock at said opening, and mechanism within said box for rocking said fingers through said opening. 35

4. A box presenting an upper face adapted to support one's hand and having an opening in an upper edge thereof, a plurality of arms pivotally mounted and disposed transversely of said box at said opening, a plurality of fingers attached respectively to said arms, and adapted to receive the fingers of one's hand, and mechanism within said box for rocking said arms. 40 45

5. A device of the class described having a box presenting a surface-rest for the hand, a shaft in said box, glove-fingers adapted to receive the fingers of one's hand for substantially the entire length of said fingers mounted upon said shaft, said glove-fingers being movable independently of one another, and means to actuate said fingers. 50 55

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses:

FÉNELON PÉLISSIER.

Witnesses:

F. D. AMMEN,
JNO. M. RITTER.