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A. KRIZEK.

APPARATUS FOR HAND GYMNASTIC EXERCISES.

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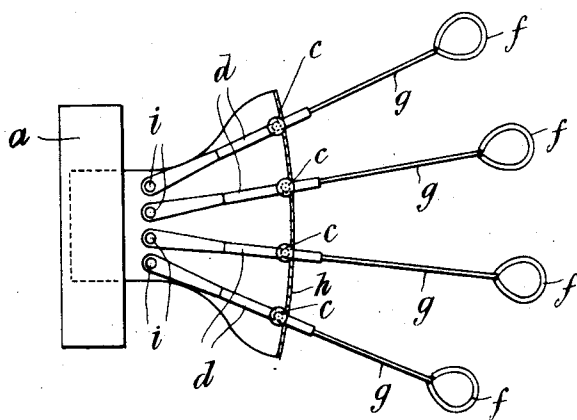


Fig: 1.

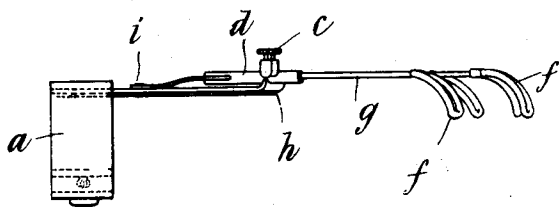


Fig: 2.

Witnesses

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APPARATUS FOR HAND GYMNASTIC EXERCISES.

No. 867,981.

Specification of Letters Patent.

Patented Oct. 15, 1907.

Application filed June 3, 1907. Serial No. 377,019.

To all whom it may concern:

Be it known that I, ALPHONS KRIZEK, a citizen of the United States of America, residing at Coburg, and whose post-office address is No. 16 Markt, Coburg, in the Empire of Germany, have invented new and useful Apparatus for Hand Gymnastic Exercise, of which the following is a specification.

The present invention relates to a device which is adapted for use in hand gymnastic exercises and which is especially intended to exercise the actions of the separate fingers of the hand independently from one another, to remove muscular stiffness and spasm and to improve the independent action of one finger from the others, as such qualities are especially needful for pianoforte playing, violin playing, skilled manual arts and for typewriting and the like.

The present device is adapted to hold the finger or fingers completely out of action and motionless in any desired position whereby the exercise of the finger or fingers which are not held out of action is facilitated and the independent action of one finger from another is exercised.

For this purpose the device consists of mechanical parts adapted to hold the separate fingers rigidly and capable of being adjusted to correspond to the special finger lengths of a hand while laterally capable of being moved together or apart so as to allow of two fingers being spread apart any desired distance.

My invention is illustrated in the accompanying drawings, in which:

Figure 1 shows a plan view of the apparatus, and Fig. 2 shows a side view.

Referring now to the drawings, the device consists of a strap *a* which is adapted to be fastened around the wrist. This strap is attached to a metal plate *b* to which a series of rods *g* corresponding with the four fingers are connected by sleeves *d*. These sleeves are pivoted by pivots *i* to the back of the plate, as shown in the drawings, in such a manner as will allow of the arms *g* being brought together or spread apart. The said arms *g* carry at their ends loops *f* which are adapted to be passed over the ends of the fingers. The arms *g* can be adjusted in the sleeves *d* to the lengths of the particular fingers over which their respective loops *f* have been passed. These arms are clamped in position by means of screws. The front edge *h* of the plate *b* is bent up, as shown in Fig. 2, and provided with a number of serrations between which the said sleeves *d* are adapted to engage, as shown.

It will be obvious that by this apparatus I can for instance, pass the loops *f* of three of said arms *g* over

the first, third and fourth fingers of a hand and spread the fingers laterally any desired distance apart by moving the pivoted sleeves *d* of said arms over the serrated edge *h* to the desired positions while I leave the second finger free to move. In this manner I am enabled to exercise a particular finger independently of the other fingers and at the same time exercise the spreading apart of said fingers.

The sleeves or holders *d* can be made of any suitable material and can be pivoted upon the plate in any convenient position, not necessarily in the position shown; or instead of being pivoted said sleeves can be elastically secured to the plate. In the same manner the rods which hold the fingers fast may be made of any material and of any convenient form and length and can be provided instead of loops with end caps or the like in order to give the necessary finger hold. These rods can also be attached directly to the plate instead of being connected to said plate through the slots *d*. I can also arrange a single rod attached to the plate adapted to branch into four arms corresponding to the fingers which are sufficiently elastic to allow of said arms being moved laterally over the rack and such a fastening device would have to be made adjustable. The plate itself can be of any convenient material and may be strengthened in any convenient manner. This plate need not necessarily be fastened to the hand by the wrist but if desired may be fastened around the palm or in any other suitable position.

It will be obvious that the apparatus described will serve for developing the independence, strength and flexibility of the separate fingers and their power of spreading apart.

What I claim is:

1. In a device for hand gymnastics, the combination of a plate, means for attaching the plate to the hand, a series of sleeves corresponding with the fingers of the hand pivoted to said plate, a series of arms adapted to engage in and to be clamped to said sleeves, means for holding the fingers to said arms and means for holding said sleeves in the desired positions on said plate, substantially as described.
2. In a device for hand gymnastics, the combination of a plate, means for attaching the plate to the hand, a series of sleeves corresponding with the fingers of the hand pivoted to said plate, a series of arms adapted to engage in and to be clamped to said sleeves, loops arranged at the end of said arms adapted to be passed over the fingers and means for holding said sleeves in the desired positions on said plate, substantially as described.
3. In a device for hand gymnastics, the combination of a plate, means for attaching the plate to the hand, a series of sleeves corresponding with the fingers of the hand pivoted to said plate, a series of arms adapted to engage in

and to be clamped to said sleeves, loops arranged at the
end of said arms adapted to be passed over the fingers
and a bent up serrated edge on said plate adapted to hold
the sleeves in any desired position on said plate, substan-
tially as described.

5 4. In a device for hand gymnastics, the combination of
a plate, a strap adapted to buckle the plate to the wrist, a
series of sleeves corresponding with the fingers of the hand
pivoted to said plate, a series of arms adapted to engage
10 in and to be clamped to said sleeves, loops arranged at the

end of said arms adapted to be passed over the fingers and
a bent up serrated edge on said plate adapted to hold the
sleeves in any desired position on said plate, substantially
as described.

In testimony whereof I have signed my name to this 15
specification in the presence of two subscribing witnesses.

A. KRIZEK.

Witnesses:

ARTHUR J. STEPHENS,
LEONARD E. HAYNES.