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INDIAN ARM WRESTLING APPARATUS

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Fig. 1

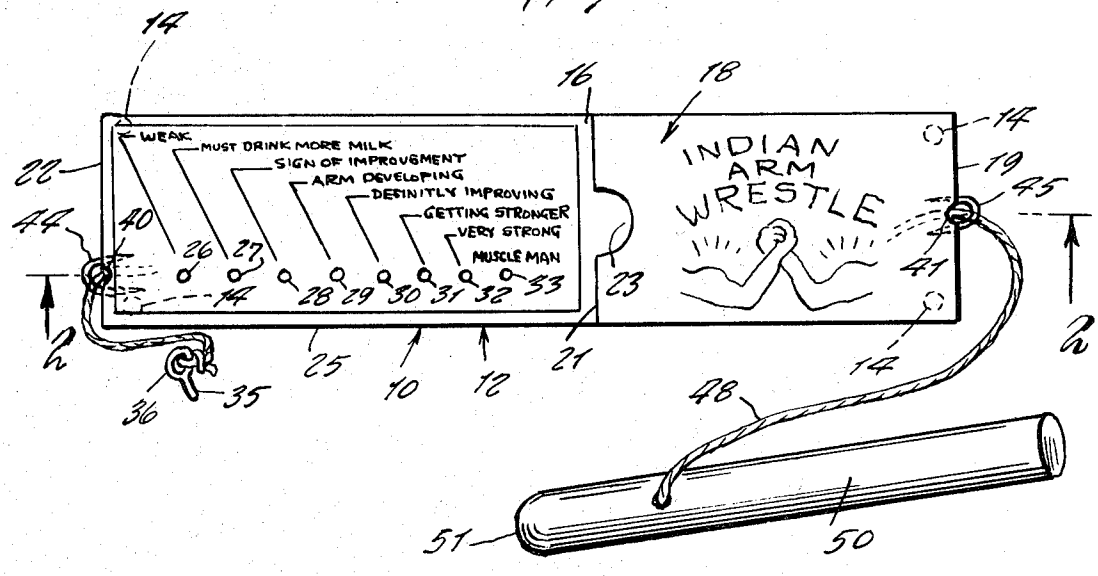
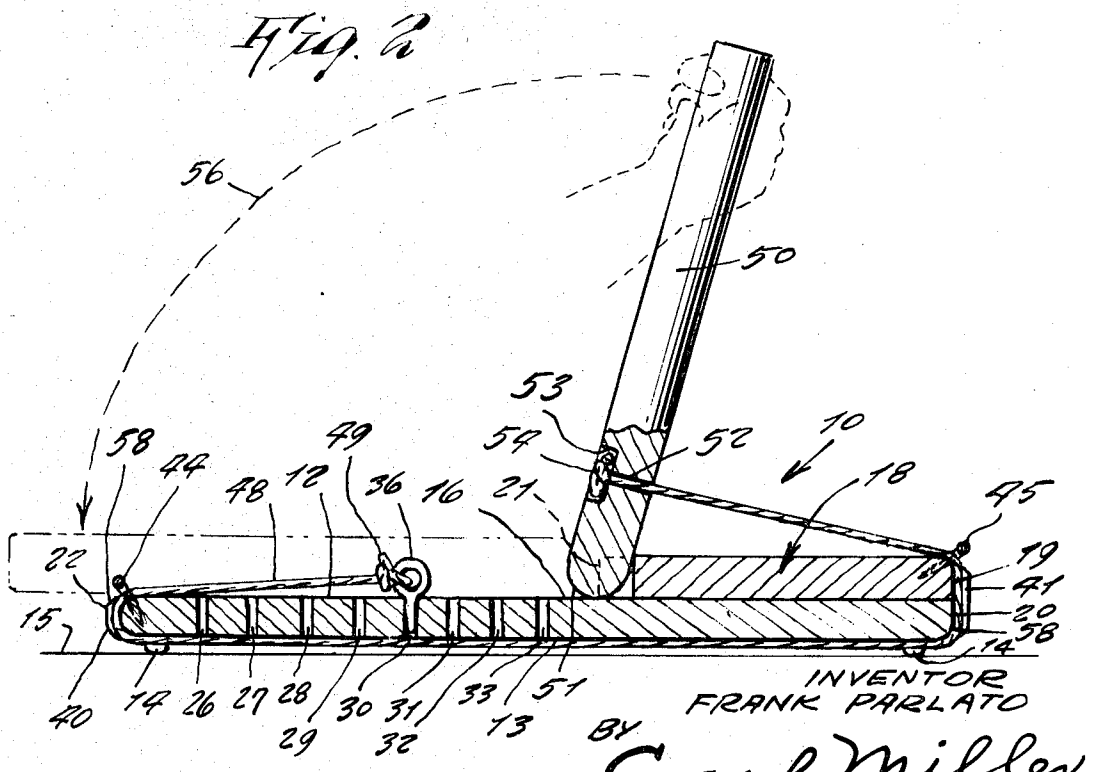


Fig. 2



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INDIAN ARM WRESTLING APPARATUS

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ABSTRACT OF THE DISCLOSURE

A strength testing and exercising apparatus for the hand and forearm of a person consisting of a base having legs to elevate the same above a supporting surface. The base is provided with a row of openings selectively receiving a shank and opposite the innermost opening of the row there is provided an abutment plate having on its forward edge an arcuate recess. A removable upstanding hand held lever in the form of a bar has its lower end rounded to fit in the arcuate recess and engages the upper side of the base encompassed by the recess. A stretchable tension cable is connected at one end to the shank and at its other end to the hand held lever. The cable passes through suitable guide means at each end of the base and extends along the underside of the base. The degree of force required to swing the hand held lever down towards the upper side of the base is dependent on the selected opening into which the shank is inserted and the angle the lever makes in relation to the base mounting a removable swingable upstanding hand to bring the lever down, the angle being the smallest when the shank is located in the outermost opening which is closest to the forward edge of the base.

This invention relates to an Indian arm wrestling device and primarily to an apparatus for testing the strength as well as exercising the hand and forearm of a person.

The primary object of this invention is to provide a base mounting a removable swingable upstanding hand held lever fulcrumed in relation to the base to which hand held lever there is connected one end of a stretchable flexible tension cable, the extent of stretch in the tension cable being dependent on the extent of movement of the hand held lever, not requiring greater force concurrent with greater movement of the hand held lever to move the same to its down position.

Another object of this invention relates to providing a row of longitudinal spaced openings in the base selectively receiving a shank to which the other end of the tension cable is attached.

A further object of this invention is to provide guide means at each end of the base through which the cable passes.

Still another object of this invention relates to providing an abutment plate at one end portion of the base opposite the row of openings the forward edge of the abutment plate having an arcuate recess and to seat on the upper surface of the base encompassed by the arcuate recess such as to fulcrum therein.

Yet another object of this invention is to form the shank with an eye to which the other end of the tension cable is secured and in providing an opening in the hand held lever in which the first mentioned end of the cable is secured.

Another object of the invention relates to forming the tension cable of braided nylon cord.

A further object of the invention consists in having the guide means constituting staples and/or recesses in the front and rear edges of the base.

Still another object of the invention is to provide indicia on the upper side of the base identifying each of the openings to indicate the degree of strength required to move the hand held lever down when the shank is placed in a selector opening.

Further objects of the invention will appear as the description proceeds.

To the accomplishment of the above and related objects, my invention may be embodied in the form illustrated in the accompanying drawings, attention being called to the fact, however, that the drawing are illustrated only, and that change may be made in the specific construction illustrated and described within the scope of the appended claims.

In the drawings:

FIG. 1 is a top plan view of the strength testing and exercising apparatus.

FIG. 2 is a cross-sectional view taken on line 2—2, FIG. 1 with the parts shown in operative relation.

Referring to the drawings in greater detail, the wrist and forearm strength testing and exercising apparatus **10** according to my invention is seen to comprise a flat elongated rectangular base **12** which may be formed of wood, metal or plastic material or any combination thereof. On the underside **13** of the base **12** and at each corner thereof there is provided a short leg **14** preferably of rubber such that the base underside **13** is maintained in spaced relation to a supporting surface **15** which for example may be a table top, counter, etc. The leg **14** is secured to the underside **13** of the base **12** in any desired manner.

Mounted on the upper side **16** of the base **12** is an abutment plate **18** which may be of the same material of the base **12** and permanently secured thereto in any desired manner. The abutment plate **18** is of the same width as the base **12**, see FIG. 1, and of a length such that its rear edge **19** is in vertical alignment with the rear edge **20** of the base **12**, and its front edge **21** is disposed rearwardly of the transverse center of the elongated rectangular base **12**. The base **12** has a forward edge **22** opposite and parallel to rear edge **20**. In other words the abutment plate **18** is preferably less than half the length of the base **12**. To insure rigidity of the apparatus both the base **12** and abutment plate **18** are made of substantial thickness. The front edge **21** of the abutment plate **18** is provided with a central substantial semi-circular notch or recess **23** for a purpose to be hereinafter described.

Viewing FIG. 1 it is seen that the side **25** of the base **12** of the strength testing and exercising apparatus **10** in operation faces the person using the same. There is provided in the base **12** adjacent side **25** thereof a longitudinal row of spaced vertical openings **26, 27, 28, 29, 30, 31, 32** and **33** parallel to side **25**, each opening extending completely through the base **12** as seen in FIG. 2. A shank **35** having an eye **36** is selectively placed in any one of the openings and is of a length substantially equal to the thickness of base **12**. The forward edge **22** is provided with a vertical guide recess **40** in longitudinal alignment with the row of openings **26–33**. A similar vertical guide recess **41** is provided in the combined rear edges **19, 20** of the abutment plate **18** and base **12**, respectively, see FIG. 2, the recess **41** being located at the longitudinal center of the base **12** and abutment plate **18**, as seen in FIG. 1. Provided at the upper end of each of the guide recesses **40, 41** are staples **44, 45** respectively, the same being driven into the top edge corner of the front edge **22** and the rear edge **19** of the base **12** and abutment plate **18**, respectively.

A stretchable cable **48** preferably of braided nylon threads is tied at one end as at **49** or otherwise secured, to the eye **36** of shank **35** and is passed through staple **44** and recess **40** to extend along the bottom surface **13** of the base **12**, the cable **48** then passing upwardly through recess **41** and staple **45** to have its other end secured to a hand held lever **50**.

The hand held lever **50** is a solid bar of wood or other suitable material of any desired length and diameter and has its lower end rounded as at **51**. The diameter of lever **50** and the semicircular recess **23** in the abutment plate **18** is such that the rounded lower terminal end **51** will lie below the top surface of the abutment plate **18** when the hand held lever **50** is placed in operative position in the recess **23**, as seen in FIG. 2. Spaced above the rounded end **51** of the hand held lever **50** is a transverse opening **52** with a forwardly positioned countersunk enlarged opening **53**. The other end of cable **48** extends through lever opening **52** and is knotted as at **54**, the knot lying within the counter-sunk opening **52**.

On the upper surface **16** of the base **12**, each of the openings **26** to **33**, inclusive are identified by appropriate indicia. Thus:

opening **26** is indicated as "weak"
opening **27** is indicated as "must drink more milk"
opening **28** is indicated as "sign of improvement"
opening **29** is indicated as "arm developing"
opening **30** is indicated as "definitely improving"
opening **31** is indicated as "getting stronger"
opening **32** is indicated as "very strong"
opening **33** is indicated as "muscle man."

With the shank **35**, for example, placed in opening **26**, the length of cable **48** is such as to permit positioning of the hand held lever **50** in its operative position, i.e., with the rounded end **51** in recess **23**. In this position of the shank **35** in opening **26**, the hand held lever **50** (with the cable **48** fairly taut) will assume an acute angle that is preferably of at least 30 degrees. Thus, it is seen that in the exercising or strength testing action it will not require much strength or force in the hand or forearm to move the hand held lever **50** in the direction of the arrow **56**, to the left (viewing FIG. 2) to an approximately parallel position relative to the top of base **12**. This movement of the hand held lever **50** will cause a slight stretching of the cable **48** within the range of a "weak" force. The lower terminal end **51** of the hand held lever **50** in recess **23** provides a fixed fulcrum for the lever. It is to be understood that the apparatus **10** is placed on a table or other suitable supporting surface **15** such as to permit placement of the elbow of the person using the apparatus in a position directly opposite the fulcruming end of the lever **50** with the hand **57** of the person grasping the upper end of lever **50** as seen in FIG. 2.

As the shank **35** is progressively placed in the openings approaching the last opening **33** the angle of the hand held lever **50** as indicated by the dotted lines of arrow **56** will increase, thereby requiring a greater distance for the hand held lever **50** to move to its down position with a corresponding requirement of greater force to stretch the cable **48** to permit this amount of movement. With constant practice and exercising, the strength of the hand and forearm or the entire arm will progressively increase as will be readily apparent.

If desired the recesses **40**, **41** may be dispensed with and the corner edges of the end sides **20**, **19** and **22** may be beveled or even rounded as at **58** to avoid cutting action on the cable **48**. It will be noted that the cable **48** extends along the bottom of the base **12** at an angle between staples **44**, **45**.

In lieu of a stretchable cable, such as the braided nylon cable **48**, the same may be replaced by a coiled tension spring or the combination of a tension spring and non-stretchable flexible cable in which the latter case the spring may lie beneath the base **12**.

What I claim is:

1. A strength testing and exercising apparatus for the hand and fore-arm of a person comprising:

(a) an elongated flat base having a front edge and a rear edge,

(b) depending legs on the underside of said base to elevate the same from a supporting surface,

(c) an abutment plate mounted on the rear end portion of said base,

(d) an upstanding hand held lever removably fulcrumed on said abutment plate,

(e) a shank element selectively fixedly positionable at one of a plurality of longitudinally spaced stations on said base on the remaining portion of said base forwardly of said abutment plate, and

(f) flexible tension means connected at one end to a point on the lower portion of said lever and extending from said connection point around said rear edge and beneath said base, and having its other end connected to said selectively positioned shank element.

whereby with said shank element fixedly positioned at a selected station and said hand held lever grasped in the hand of a person with the elbow opposite said lever and resting on the supporting surface, a force applied by the hand to the hand held lever will swing the same in a direction towards the shank element and downwardly towards the upper surface of the base to apply tension to the flexible stretchable tension means, the amount of force required to bring the hand held lever down to the base being least as to the selected station of the shank element further removed from the fulcrum point of the hand held lever and greatest at the selected station closest to said fulcrum point.

2. The apparatus of claim **1**, wherein:

(a) said base is of elongated rectangular form,

(b) said abutment plate is securely mounted on the upper side of said base and having its rear edge in vertical alignment with the rear edge of said base,

(c) an arcuate recess in the front edge of said abutment plate, and

(d) said hand held lever being a bar element having its lower end rounded for seating engagement on the upper surface of said base positioned within said arcuate recess to provide the fulcrum thereof.

3. The apparatus of claim **2**, wherein:

(a) said stretchable pull resisting flexible tension means comprises a flexible cable,

(b) said shank element having an eye at its upper end to which one end of said cable is secured,

(c) there being an opening in the lower portion of the hand held lever through which the other end of the flexible cable passes for connection to said lever, and

(d) said plurality of spaced stations comprising a longitudinal row of spaced vertical openings each of a size to receive said shank element.

4. The apparatus of claim **3**, wherein:

(a) said longitudinal row of openings is located adjacent one longitudinal side of said base,

(b) said arcuate recess providing the fulcrum for said hand held lever being in the longitudinal center of said base, and

(c) said flexible tension cable being taut when the shank element is in any one of said openings and said hand held lever is in its operative position within the arcuate recess, and

(d) the angle of said hand held lever with relation to the top surface of said base being acute or smallest when the shank element is in the selected opening closest to the front edge of the base and furthest removed from the lever fulcrum and greatest when the shank element is in the selected opening closest to said lever fulcrum,

whereby the force required to move the hand held lever to its down position is directly proportional to the angular movement through which the lever must move.

5. The apparatus of claim **4**, including

(a) a guide means for the flexible tension cable positioned on the front edge of said base in longitudinal alignment with said row of openings, and

(b) a guide means for the flexible tension cable posi-

tioned on the rear edge of said abutment plate in the longitudinal center thereof,

whereby both said guide means are laterally offset.

6. The apparatus of claim **5**, wherein:

(a) each said guide means comprises a staple through which said flexible tension cable passes.

7. The apparatus of claim **6**, wherein:

(a) a vertical recess in the front edge of said base and the combined and aligned rear edge of said abutment plate and base, and

(b) said recesses being in vertical alignment with their associated staples.

8. The apparatus of claim **7**, wherein:

(a) said stretchable flexible tension cable is formed of braided nylon cord,

9. The apparatus of claim **8**, wherein:

(a) the upper and lower transverse edge corners of the front edge of the base and the rear edge of the

combined aligned abutment plate and base are beveled.

10. The apparatus of claim **9**, including:

(a) indicia on the upper side of the base forwardly of the abutment plate for identifying the degree of strength required to move the hand held lever down for each of said openings.

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