SKIPPING ROPES

This invention relates to skipping ropes.

The skipping rope is one of the oldest and best-known human exercise devices. As a child's plaything, it maintains popularity through the ages and across cultures. However, it is also used as a serious exercise device by many who wish to keep healthier and fitter, and particularly by those for whom the exercise of skipping develops particular muscle strength and tone, most notably (but not exclusively) boxers.

International Publication WO 01/56660 discloses skipping ropes which have, in place of the conventional generally elongate handle in line with each end of the rope, a T-shaped handle with the rope attached in swivellable fashion to the bottom of the vertical stroke of the T. The crosspiece of the T is held essentially in the palm of the hand with the fingers curled round it, and the vertical portion of the T extends between two of the skipper's fingers. This enables skipping to be carried out with the hands held at the sides of the skipper in a comfortable position, i.e. with the palms essentially facing inwards towards the skipper's thighs. This is much more comfortable than the conventional posture which needs to be adopted when using a classical

skipping rope where the skipper has to turn his or her hands outwards into a somewhat awkward position.

Although the skipping ropes with T-shaped handles described in the above-noted specification work well for many users, some find the manipulation of a T-shaped handle uncomfortable and specifically some people do not like the feel of the shaft passing between their fingers. The present invention seeks to alleviate these disadvantages and provide skipping ropes with handles which, while they differ from numerous prior art suggestions, retain the ease of use of the skipping ropes described in the publication noted above.

WO-99/38574 discloses skipping ropes with generally curved handles, but these do not provide a comfortable skipping position for the skipper's hands.

According generally to the present invention, there is provided a skipping rope consisting of a length of rope having a handle on each end wherein each handle is an elongate member bent or angled through at least 60°, such that when one portion of the handle remote from the rope is held by a skipper's hands aligned substantially horizontally and along an axis extending transverse to the plane of the skipper's body, the other portion of the handle is directed outwards to direct the rope laterally away from the skipper's body.

Preferably the handle is generally L-shaped, with the ends of the L preferably being angled one relative to the other by at least 75°, more preferably at least 85°. Thus, the handle of the skipping rope according to the present invention may be conventionally thought of as "L-shaped", with the normally shorter portion of the L directed laterally outwards from the skipper's body and with the longer portion of the L held snugly between the palm and curled up fingers.

Such a construction may be used conveniently and comfortably with the angled shorter portion extending directly outwardly across the first carpal of the first finger.

If desired, the portion of the handle adjacent the end of the rope may be narrowed or necked with the narrowing or neck then being locatable between the fingers of the hands of the users. This provides a somewhat snugger fitting and reduces the risk that the handle can slip out of the skipper's hand generally in the direction of the elongate portion of the handle which lies within the hand. Such movement is prevented if the usually shorter portion lies between the fingers, specifically usually between the first carpals of two adjacent fingers, usually most comfortably the first and second fingers.

The handles of skipping ropes in accordance with the present invention may be made of any suitable material and by any convenient manufacturing process. Likewise, the swivel connection of the rope itself to the handle may take any convenient known form, for example that of a rotating ball in a socket as illustrated in Publication WO 01/56660.

The precise cross-section of the portions of the handle may vary. A circular cross-section is generally easy to manufacture, but not always ideal to grip. The external contours of the handle may be configured to match better the contours of the hand which grips it. It is conceivable to manufacture the handles in two pieces, for example a curved or angled tubular metallic base with a slip-on grippable cover, e.g. made of a soft plastics or rubbery composition and dimensioned to be a snug press fit over the tubular base, in the fashion of a handlebar grip for a bicycle.

The precise shape and size of the handle are matters of design. A variety of designs is illustrated by way of example in the accompanying drawings. In each of these, just one handle is shown, from which extends a piece of

flexible rope. The other handle matches the one shown and the majority of the rope between them extends over a suitable length - of which just one end is shown.

Referring to Figure 1, this shows a simple L-shaped handle consisting of a longer section 1 and a shorter section 2. Sections 1 and 2 merge together at a moulded angled corner generally indicated at 3.

Extending from the free end of section 2 is a rope 5 which is held captive, e.g. by means of a knot in a ball 6 which is freely rotatably mounted in a cup-like socket at the end of section 2. The rope 5 is shown extending in the same direction as the end portion of section 2 and the axis of the rope, and accordingly the end portion of the handle, is denoted 8. The axis of the main portion of the handle 1 is denoted 9 and preferably the angle between axes 8 and 9 is around 90°.

In use, the two handles, one at each end of rope 5, are grasped by the user with the sections 1 curled between their palm and fingers and sections 2 pointing outwardly. If desired, the handle can be used with section 2 passing between the fingers of the user's hands, for example if Figure 1 is taken as showing a perspective view from above of the handle held in the skipper's left hand, the skipper's left forefinger can be located in position A and the middle finger of their left hand located in position B as indicated on the drawing.

Figure 2 shows an alternative embodiment where the main portion of the handle is somewhat more broadly curved. Like portions to those shown in Figure 1 bear like reference numbers. In contrast to the relatively angular L-shape of Figure 1, however, the handle shown in Figure 2 is more gently rounded. Thus, from the rope, the handle consists of a short socket section 10, a waisted section 11, then a gently curved section 12 and finally a relatively straight tail section 13. As before, the angle between the axis of 8

of the section 10 and the axis 9 of the section 13 is preferably at least 75°, more preferably at least 85°. Likewise as before, if desired, the user may put two of his or her fingers either side of section 11, in the positions marked A and B.

Figures 3 and 4 show in each case alternative designs for the handle, in perspective, side, plan and end views.

CLAIMS

1. A skipping rope consisting of a length of rope having a handle on each end wherein each handle is an elongate member bent or angled through at least 60°, such that when one portion of the handle remote from the rope is held by a skipper's hands aligned substantially horizontally and along an axis extending transverse to the plane of the skipper's body, the other portion of the handle is directed outwards to direct the rope laterally away from the skipper's body.

2. A skipping rope according to Claim 1 wherein the handle is generally L-shaped.

3. A skipping rope according to Claim 2 wherein the ends of the L are angled one relative to the other by at least 75°.

4. A skipping rope according to Claim 3 wherein the angle is at least 85°.

5. A skipping rope according to any one of Claims 1 to 4 wherein the portion of the handle adjacent the end of the rope is narrowed or necked to provide a narrowing or neck which may be located comfortably between the fingers of the hand of a user.

6. A skipping rope according to any one of Claims 1 to 5 wherein the swivel connection of the rope itself to the handle includes a rotating ball in a socket.

7. A skipping rope according to any one of Claims 1 to 6 wherein the external contours of the handle are configured to match the contours of the hand.