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**PATENT
APPLICATION**

21

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54 **Jump rope**

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The subject of the invention is novel handles adapted to the "jump rope" category.

5 This invention is characterized by handles equipped with ball bearings or swivel joints inside which the ends of the cord are crimped using the method described below.

10 The jump ropes used to date are generally awkward to use or noisy, and furthermore, the handles of most of them wear out quickly; the proposed invention eliminates practically all of these defects. The invention allows the rope to easily rotate inside the handle, and to externally oscillate, because of the swivel joint, thus avoiding shearing. (See PL. 1 [sic], Fig. 1 a, the rotating motion indicated by an arrow on the cord, and the oscillating motion, Fig. 1 b.)

15 In addition, the attachment of the cord inside the bearing and its method of crimping make it easy to disassemble in the event of a cord that is too long or must be replaced.

Description of the device PL. I, Fig. 1 a - 1 b.

- 20 - (1) Handle sleeve body
- (2) Ball bearing or swivel joint
- (3) Crimping assembly
- (4) Cord

25 (1) The body of the sleeve, Pl. II, Fig. 2, will be made of plastic. The bore of the bearing seat - a - will have a diameter smaller than the latter so as to enable it to be crimped. An open space - b- enables the cord to oscillate inside it. See cross-section A.

(3) The device for retaining and crimping the cord is composed of two parts, Pl. III, Figs. 3a and 3b.

30 One is a split bushing made of plastic, the other a steel washer. -a- The plastic bushing will have an internal bore the diameter of the cord. Externally, one cylindrical part will have a diameter larger than the bore of the swivel joint, the other trimmed and split. Two flat sides - c - will be made externally perpendicular to the split, in order to position the crimping washer, Fig. 3 b.

35 -b- Internally, the steel washer, Pl. III, Fig. 3, will have the diameter of the upper part of the plastic bushing - e - Fig. 3a. The two flat sides correspond to the width - d - formed by the split.

Fig. 3 a, viewed along B - Pl. III.

(4) Cord - the cord will preferably be made of braided nylon.

Assembly

The device is assembled in the following way:

- 1°) Slide the plastic bushing, Pl. III, Fig. 3 a, onto the cord, allowing the latter to protrude by several millimeters.
- 5 Heat this assembly by dipping it in hot water for a few seconds, then insert it into the bore of the ball or swivel bearing until it is in contact with the flange of the bushing, Pl. IV, Fig. 4 a.
- 2°) Pinching the bushing on the slot side, insert the washer under the flange, Pl. IV, Fig. 4 a. Pivot the washer by 90° to bring the flat sides of the latter into contact with the flat sides of the bushing, Pl. IV, Fig. 4 b. The cord is immobilized. Burn the end of the cord with an iron or flame to prevent any unraveling. Pl. IV, Fig. 4 b.
- 10 3°) Soak the part of the sleeve body on the bearing side in hot water, and press the assembly, Pl. IV, Fig. 4 b, into its housing.
- 15 The assembly is complete and ready to use. See Pl. I, Fig. 1 a.

CLAIM

Jump rope characterized in that it is composed of a braided nylon cable joined to two handles by means of impermeable, self-lubricating ball or swivel bearings so as to obtain fast rotation and good trajectory stability in the cord.

Plate I/4

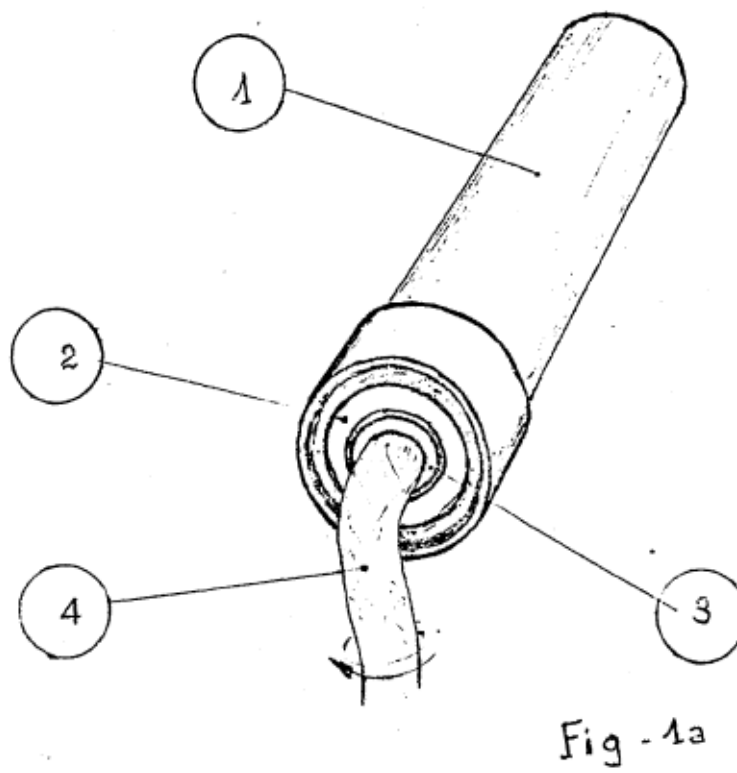
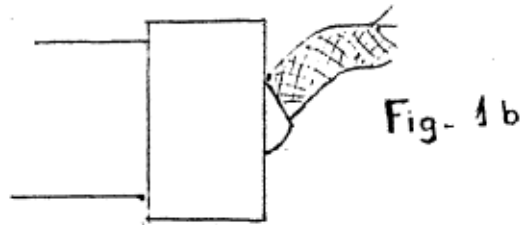


Plate II/4

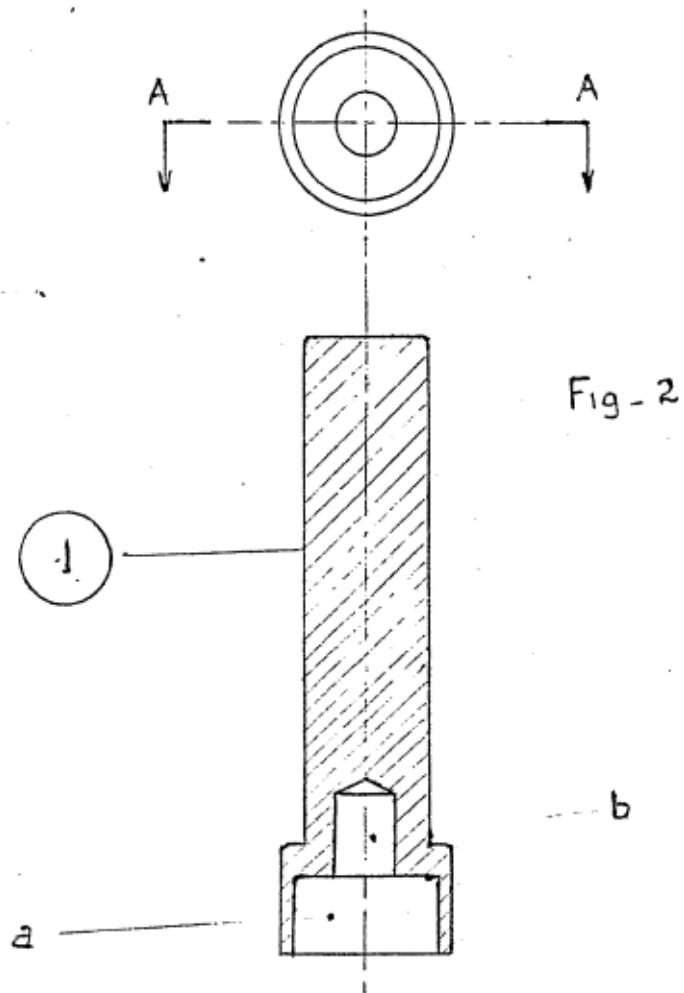


Plate III +

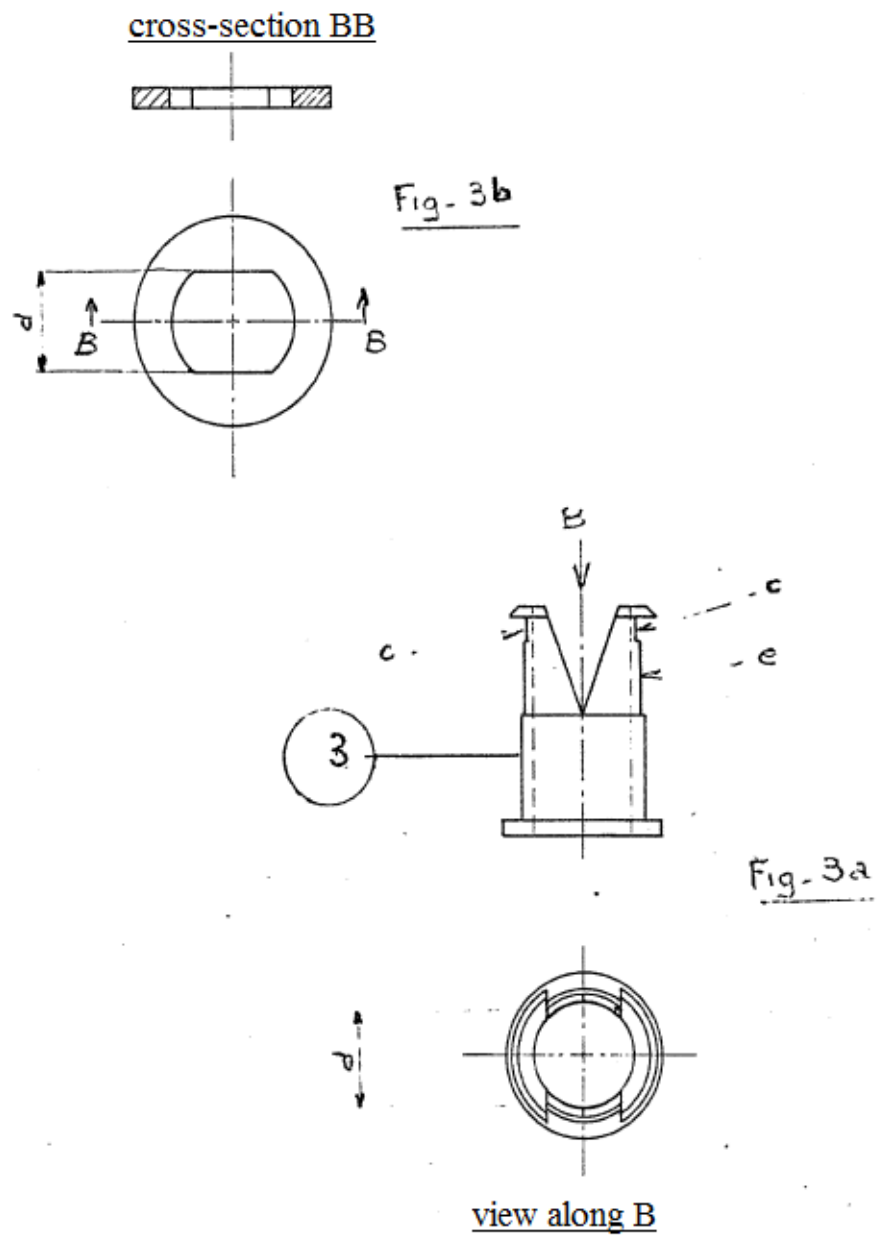


Plate IV/4

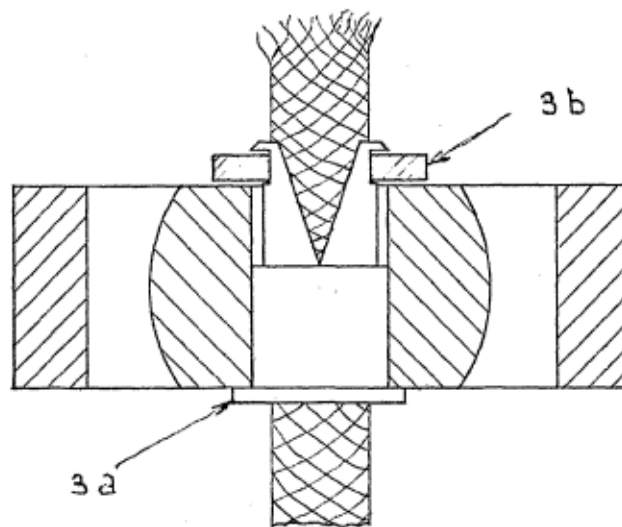
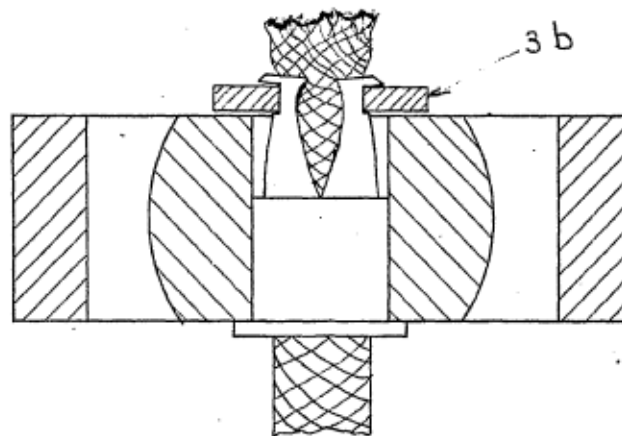


Fig. 4a

0°

90°

Fig. 4b





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