

## A SIMPLE TRANSDUCER FOR MECHANICAL PLETHYSMOGRAPHY OF THE MALE GENITAL

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The availability of an objective method to determine the objects of sexual arousal in the male is of considerable importance for experimental research on sexual behavior (Ford and Beach, 1953). Equally important is the use of such a method for psychiatric and psychological practice as a reliable tool for the diagnosis of homosexuality and pedophilia. The impossibility of using currently employed projective tests (Freund, 1963a, 1965) prompted the development of an objective method for the detection of the objects of sexual arousal. The method is based on the measurement of volume changes of the male genital while the patient is viewing pictures of possible erotic objects on a screen, in this case photos of nude men, women, and children of either sex. The usefulness of the method in diagnosing predominance of homo- or hetero-erotic interest in the male has been described elsewhere (Freund, 1959, 1961, 1963b; Freund, Diamant and Pinkava, 1958). The method has recently been modified to determine with more precision the age of the preferred objects (the problem of pedophilia and predilection for adolescents).

Anyone interested in adopting the method will encounter the problem of designing an air-proof transducer of penile volume changes which would fit in a mechanical plethysmograph and not molest the patient. A description of the transducer is given below. Its low cost makes the transducer easily available. Several dimensions will be given below for various sizes of the device. The transducer has so far been used in 350 tests (299 mentioned in published reports).

The device is composed of the following components:

(1) a glass cylinder widened slightly at the base and narrowing into a funnel at the top. To it is attached a small tube which connects with the volumetrical instrument. The height

of the cylinder short of the funnel is 145 or 160 mm; its broadened part has an inner diameter of 42, 44, 49, or 54 mm and reaches up to 35 or 50 mm from its base. The remaining part of the cylinder has an inner diameter of 38 or 42 mm.

(2) A plastic ring 14 mm high with an inner diameter of 35, 37, 42, or 47 mm, and an outer diameter of 40, 47 or 52 mm, provided with two grooves on its outer surface and a small orifice adapted to receive a small metal tube.

(3) A 20 mm-long metal tube, with 7 mm of thread and a shield at one end which fits into the orifice in the plastic ring. The tube has an inner diameter of 2 mm, and an outer diameter of 3 mm. The outer diameter of the thread is 4 mm.

(4) A locknut adjusted to the thread of the metal tube, a rubber and metal washer for its

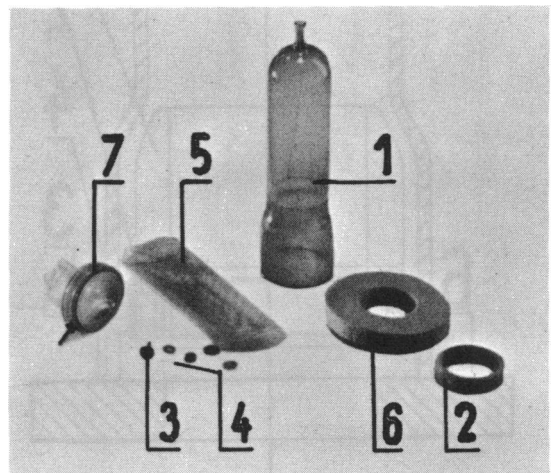


Fig. 1. Components of the transducer.

- 1 glass cylinder
- 2 plastic ring
- 3 metal tube with threads and perforated shield
- 4 locknut with washers and shield
- 5 thin rubber tube
- 6 flat soft sponge rubber ring
- 7 rubber cuff on the plastic ring

complement, and a rubber washer under the tube shield.

(5) A thin rubber tube made from a condom by cutting off its top end; it is approximately 100, 130, or 160 mm long.

(6) A flat soft sponge rubber ring which serves as a pad for the glass cylinder. The outer diameter of the ring is somewhat larger, its inner diameter somewhat smaller than the outer and inner diameter of the cylinder base respectively.

The whole device is assembled from the aforementioned components in the following

manner: slip one end of the condom (5) over the edge of the ring (2). Pass its counterpart through the ring, and mount it over the lip already stretched over the ring, causing them to overlap. Before fastening the condom on the plastic ring insert the piece of metal tube (3) with the rubber washer resting against the shield into the pouch or cuff so formed by the condom. Next, fasten the condom onto the outer surface of the ring by winding tightly a length of string round the grooves thereon finishing the operation with a piece of adhesive tape. Now grip firmly the metal tube lying inside the cuff and push it from inside through the orifice of the plastic ring, piercing the condom. Mount a metal and a rubber washer on the end of the tube protruding from the ring and apply the locknut, screwing it tight.

The final assembly of the transducer, *i.e.*, its mounting into position is performed as follows: the sponge rubber ring acting as a pad for the glass cylinder, is fitted on the genital. Next apply the plastic ring with the elastic cuff and affix thereon the glass cylinder in such a manner that the piece of metal tube will protrude from the opening near its bottom. (Fig. 2). The glass cylinder is attached to the body of the patient with straps. The elastic cuff is then inflated with air to fill up the broad end of the cylinder to make its base airtight, the supply of air to the cuff is cut off and the funnel of the cylinder connected by tube to the volumetric device. The volume changes subsequently arising inside the glass cylinder can now be measured on the volumetric instrument.

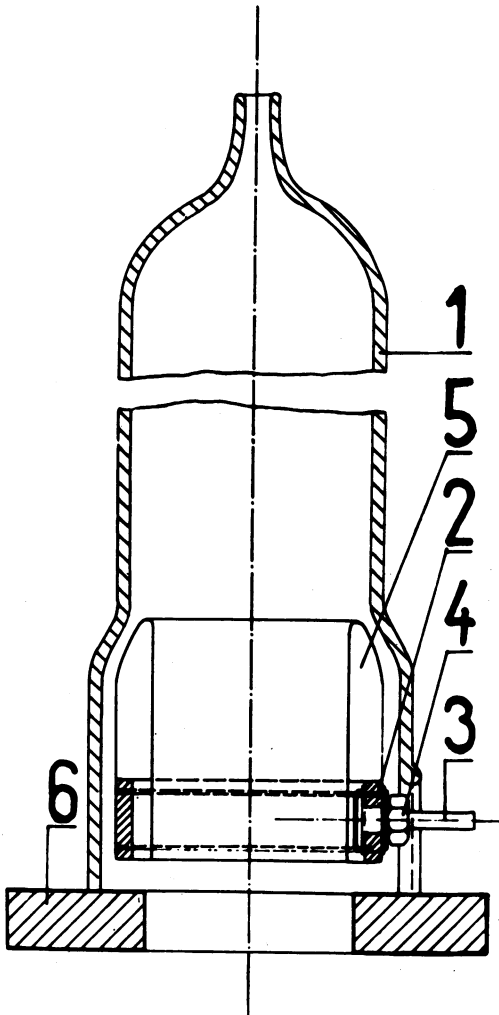


Fig. 2. Components of the assembled transducer.

- 1 glass cylinder
- 2 plastic ring
- 3 metal tube with threads
- 4 locknut
- 5 rubber cuff
- 6 flat soft sponge rubber ring

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