A simple body weighing machine

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It is customary to weigh the organs removed at necropsy and these measurements provide objective criteria of atrophy, hypertrophy, and disease. However, surprisingly few mortuaries have facilities for weighing whole bodies. When this hospital opened in 1970 attempts to obtain a body weighing machine within the limits of the budget were unsuccessful and a simple modification of the body elevating machine was devised which enabled each body to be quickly and easily weighed.

Method

A gallows beam of 50 mm square structural tube is held permanently in place by a locking screw in a fabricated mounting made of 6 mm steel plate, the whole being galvanised. The long-handled locking screw facilitates easy dismantling if required. The mounting is bolted to the top of a power-operated Gibbons mortuary stacking machine (model H5033M) (Fig. 1). A spring balance with a capacity of 200 kg, by division of 1 kg, is suspended from the beam, and to the balance four chains are attached which can be fixed by hooks to the four corners of an unmodified steel body tray. The tare is adjusted with the chains and tray in position.

Cadavers may be conveniently weighed while being removed from the body store: the tray carrying the body and supported by the elevator is attached to the balance by four chains. The elevator support is then lowered until the tray and the body are freely suspended and the weight is read from the spring balance (Fig. 2). The method was devised to suit the model of stacking machine available in the mortuary. However, it can be adapted to other models which lack the necessary upright frame by building a gallows beam into the fabric of the mortuary at some convenient place (Pike, C., personal communication).

This modification of the stacking machine is robust and has functioned satisfactorily for seven years. It is simple to use, and the method quickly becomes part of the technician’s routines for loading and unloading bodies into the store.

Fig. 1  Steel mounting and gallows beam (arrow) which is held in place by locking screw with handle (double arrow).

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Letter to the Editor

Polystyrene mounting medium

The medium described by Kirkpatrick and Lendrum (1939) and named by them DPX (Distrene plasticised in xylene) was replaced by a better formula in 1941. This medium BPS (butyl phthalate plasticised styrene) has given excellent and economical service until recently. The current trouble was not due to the makers of the polystyrene.

Natural Styron 686E (natural signifies clear!), made by Messrs Dow Chemical Ltd, is now marketed in the smaller quantities in Britain as Polystyrene SA99/W Crystal by Messrs R. H. Cole Ltd, 85 Southdown Road, Harpenden, Herts. Laboratories preparing their own BPS are advised to use this formula: Dissolve 12 g of the crystals in a mixture of 40 ml xylene and 4 ml dibutyl phthalate (Lendrum et al., 1962 and 1972). This can be stored in glass or conveniently for use in screw-capped metal tubes filled from the open bottom end which is then closed by folding over with pliers. These 'Collapsible Tubes, 1 inch by 5½ inches' are obtainable from Messrs Adelphi (Tubes) Ltd, 20 Duncan Terrace, London N18BZ.

One pound (0.45 kg) of crystals provides mountant for more than 6000 coverslips (75% one inch square).

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References

