

"MYSTERY PIECE", IDENTIFIED!

Base: l x w x h; 30 x 10 x 8 cm

Markings on dial: an arrow with the instruction, "To increase sensitivity."

Brass Fibre Carrier, part of Einthoven String Galvanometer.

Identified by Julian Holland, Curator of Scientific Instruments, Macleay Museum, Sydney.



Further description of the "Mystery Piece" in the Toronto Instrument Collection

C. Douglas Creelman

There are two knurled electrical connections on the bottom which are connected inside to the two ends of what appears to be a resistive heater wire running through the center rectangular brass piece. Actually I may have bottom and top reversed, since the adjustment wheel, with its label, was probably meant to be seen easily.

The wheel marked "To Increase Sensitivity" moves the end of a lever which in turn moves the end of the wire inward, apparently lessening tension or (slightly) allowing it to sag downward. The range of movement is very small, in the order of millimeters. The end of the lever opposite to the screw adjustment is against a set-screw, and the end of the set screw has holes around the cylindrical top, looking for all the world like a miniature capstan. There is no calibration on the adjustment; it looks as if it was meant to be set up and then left.

There is a mounting bracket on the top toward the end with the adjustment wheel, and two fine adjustment screws on either side of the mount, apparently to fix the orientation of the apparatus very precisely. These adjustment screws have the same capstan-like ends.

The central brass rectangular "bar" has solid brass pieces along the inside top and bottom, with very thin brass sides screwed on.

The whole piece is beautifully machined and deserves the fine oak box, with mounts surfaced in felt, which holds it.

Bill Verplanck has guessed, from a look at the picture, that it is concerned with cutaneous sensitivity. Almost right on.

My guess, from the vantage point of having it on my desk while I write this, is that it is indeed for cutaneous measures, but for thermal (warmth) studies.

Another guess might be that it is concerned with electrical measurements, in some sort of voltage bridge. The underside is engraved with a figure which might support this interpretation, a rectangle with resistors along each side, and connecting opposite corners, lines going to an elliptical cam sort of thing.