SURVEYING BY PHOTOGRAPHY.

At a recent meeting of the Geographical Society, Mr. Bridges Lee, M.A., F.G.S., described a new instrument for surveying by the aid of photography. The instrument, says Invention, consists essentially of a photographic camera fitted inside with a magnetic needle which carries a vertical transparent scale divided and numbered to 360 degrees, and also with cross fibres which intersect at right angles. The fitting and adjustments of the instrument are of such a character, that the camera can be accurately levelled and directed towards any point in a horizontal direction, and when a photograph is taken in any ordinary way, the bearing of the median vertical plane which bisects the instrument through the photographic lens will be recorded automatically on the face of the photograph which markes the

median vertical on the image. The horizontal fibre is adjusted to mark on the image the horizontal plane which bisects the ppotographic lens. The camera rests on a divided horizontal circle, which can be adjusted to a truly horizontal position by levelling screws. There is a tripod stand and head, with suitable appliances for supporting and adjusting the instrument in position. The camera is provided with a rapid rectilinear lens and iris diaphragm, and focussed by rack and pinion. It is made of aluminium, and it is surmounted by a telescope, adjustable in altitude, and fitted with vertical and horizontal webs; and it is also surmounted by a revolvable tubular level.

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