

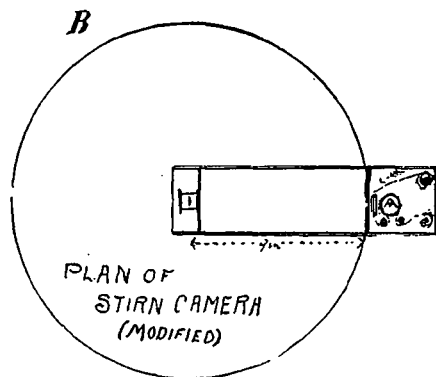
PANORAMIC CAMERAS.

BY H. H. BUCKWALTER.

THE STIRN CAMERA.

(Concluded.)

In this model camera, both the lens and film revolve and a full circle is possible. A circular base whose radius is exactly the focal length of the lens is first provided. In the case of a lens of nine inches focal length,



the diameter of the circle would be eighteen inches. For example five inch film will be used. This would give a negative $5 \times 56\frac{1}{2}$ inches. The box carrying the lens is pivoted to the circular base, immediately under the diaphragm of lens, and moves freely on felt or velvet bearers glued to the bottom of box. The extension in front of the lens is to carry the pivot and its fastening. In exact focus of the lens, in the back of the camera, an "exposing board" is placed. This is a strip running from top to bottom, about $1\frac{1}{2}$ inches wide and rounded on each side to permit the film to move across it easily. About one-eighth of an inch in front of this exposing board is the slit, $1-16$ of an inch wide, through which the picture is taken. Just back of the exposing board is a roller about three

inches in diameter. The object of this roller is to move the film. Extending through the bottom of the box is the axis of this large roller, and attached to the axis is a roller or wheel exactly the size of the inside roller. A belt is run around the base board and around the outside roller and causes the latter to revolve the inside. The film is run from a roller or "daylight" box in the upper corner through the space between the exposing board and slit and then over a small guide roller and around the large roller. From here it is carried over another small guide to the roller at the back. Attached to this roller, to hold the exposed film, is a small drum or roller on top and outside the box. A fine cord is wrapped around this and a small weight is attached. The cord runs over the top of the box and down through the hollow pivot under the lens. The weight is attached below. It is not shown in the diagram. A very simple clock work may be substituted for it. Access to the interior is given by doors on each side of the rear portion and are not shown above. Their location is not an arbitrary matter.

The writer has seen an attachment to a 4x5 Junior Kodak that was put on in place of the glass plate attachment. The interior of this special attachment was substantially as above, and was carried in a case with a circular base board that was cut in half and joined when desired. A very simple attachment below the lens was the only change to the original Kodak. The extra back was provided with a dark slide and punch for marking between exposures.

The writer developed one negative made with this outfit and made