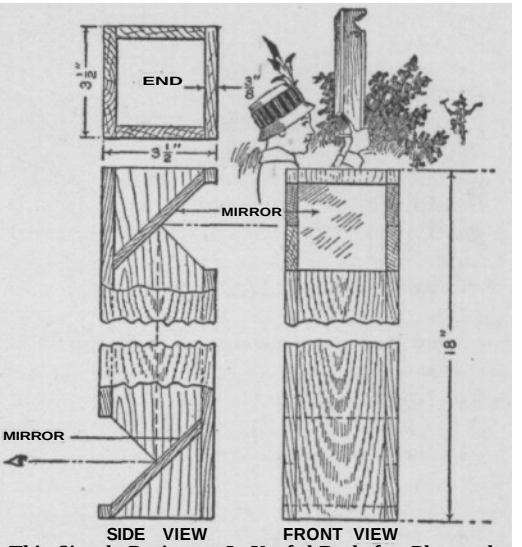
tical uses as well. In a store or other place where a person on duty cannot watch all parts of the establishment.



This Simple Periscope Is Useful Both for Play and Practical Purposes

such a device is convenient in that it will reflect persons entering the door. As a toy or for experimental purposes the periscope shown has many possibilities, and will appeal to youngsters.

It consists of a square box, 18 in. long, open at the ends. It is 3½ in. wide and made of wood,.375in. thick. A mirror is fitted at an angle of 45° near one end of the box or tube, as shown in the sketch. The front of the mirror is opposite a three-cornered opening in the box which extends across one side. The opposite end of the tube is also fitted with a mirror in the same manner, except that the front of the mirror faces to the opposite side of the box at which there is also an opening. In using this device, the user sights from the point indicated by the eye. The image is reflected in the mirror at the top and thrown onto the lower mirror, where it may be seen without exposing the head above the level of the lower opening. It is this application of reflection by mirrors that makes it possible for soldiers to see distant objects without exposing themselves to fire, by the use of the periscope.

Useful Periscope Which a Boy Can Make

Mention of periscopes is quite common in the reports from European battle fields; such a device in a simple form can be made easily by boys who have fair skill with tools. The illustration shows a periscope which may be used for play, and has other prac-