

is drawn through the indicating tube. If carbon monoxide is present, the yellow silica gel will turn a shade of green, the intensity of which is directly proportional to the concentration of carbon monoxide in the manhole atmosphere. Differences in intensity of green are quite sharp at 70°F and comparison with a color chart gives the concentration in the sample. This chart has colors ranging from the original yellow of the gel to various shades of green corresponding to concentrations of 0.005 to 0.1 per cent carbon monoxide in air by volume (0.5 to 10 parts in 10,000). In actual use, any color change is considered indicative of an unsafe manhole atmosphere.

Even though the indicator tubes lose part of their sensitivity below 50°F, they will detect low con-

centrates of carbon monoxide at freezing temperatures by a distinct color change from yellow to green. For more sensitive operation during periods of cold weather it is only necessary to carry the tubes in an inside coat pocket where they are warmed by body heat, or hold them in a bare hand for a short period before they are lowered into a manhole. The response of the indicating gel is further increased by operating the aspirator bulb two or more times.

The Bell System's use of this reliable means for detecting carbon monoxide is representative of its efforts to guard the safety of the people who make telephone service possible.

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Drop Wire Cap

When service to a particular telephone is temporarily disconnected for any reason, the drop wire from a terminal box on a nearby pole to the telephone set on the customer's premises is disconnected at the terminal end. The stripped wires are then taped for protection and tagged to identify their destination, thus facilitating restoration of service. In the past, this labeling procedure has frequently proved fruitless because the white linen tags used did not withstand weathering and the markings were soon obliterated. An installer finding a tag illegible would have to climb down the pole, connect a test set to the customer's end of the drop wire and climb back up the pole. Then he would identify the particular drop wire by connecting his hand test set to the various wires in turn until he heard a buzzer tone.

To save time and avoid this inconvenience, a new method of protecting and identifying the ends of disconnected drop wires has been devised. This makes use of a B Drop Wire Cap consisting of a 3-inch length of clear cellulose acetate butyrate tubing that is sealed at one end. The installer places the cap, containing an identification tag form, on

the end of the wire and seals the open end with tape. This eliminates the need for taping each bare wire and provides a quick and reliable means of identifying the drop wire.

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T. W. Rolph places B Drop Wire Cap (arrow) on disconnected wire.

