night, the thermo-couple was swung around the "horizon" and instantly located the concealed "ice berg" there in the dark!

Many potentialities at once suggest themselves for such wonder-working apparatus—as sensitive in "feeling" as the electric eye is in "seeing."



Take the hurdles out of the dealer's path

If radio is to be put on a firmly stable basis, the average radio manufacturer must give more thought to the retail problems of the dealer, and the relation of these difficulties to the manufacturer's own selling policies.

Too many models, too many price changes, too little territorial protection, too little aid in the practical work of merchandising,—these are the charges which the dealers bring against the set makers.

It is essential that the set manufacturer give interested concern to the dealer's selling problems. Sympathy and study will bring about a fuller understanding, and relief from the unnecessary hurdles which the retailer is now called on to jump.



The market for "pocket portables"

S UCCESS already attained in England with a "pocket portable radio set, indicates that an interesting market might be opened up on this side of the water for a tiny set weighing a pound or so, and capable of giving "one man service."

The British set was designed for police use, and measures $6\frac{1}{2}$ in. by $4\frac{3}{4}$ in. by 2 in. It weighs 1 pound 14 ounces, three-quarters of which weight is batteries. A novel factor is a call bell to attract the attention of the police wearer. The antenna is worn in the back of the coat.

Although originally constructed for use on 150 meters, these little miniature sets have been successfully employed in the broadcasting band.

Railroad jobs for electron tubes

ALREADY electron tubes are employed in force on that most important of safety uses, railroad block-signalling and engine-cab indications. Other possibilities include freight-car classification as proposed on another page.

Work is already underway on an electronic Pullman door-opener which will not wreck the constitution of a frail woman or child, or spoil the breakfast or dinner of even a strong man who has to fight his way to the diner through half a dozen vestibules, with their imposed juijitsui and calisthenics at each opening.

And we suspect the day will come when every little wayside railroad station and waiting room will have a melodious loud-speaker playing sweet music and giving out interesting news items and adventure stories, sandwiched in between goodwill messages from the railroad management to its public. Loudspeakers in each waiting room could be operated from the railroad's own telegraph circuits without interfering with the regular code communication, going over the lines.

With all the money that the railroads have been spending on advertising to general readers, it is surprising that no use has been made of this logical, inexpensive channel to reach their own passengers and shippers.



NBC'S CHIMELESS CHIMES



Captain Richard H. Ranger, (left) inventor of the pipeless organ, the bell-less carillon, and RCA's facsimile transmission, explains his latest invention to O. B. Hanson, manager of technical operation and engineering of the National Broadcasting Company. The new automatic device now supplants the familiar three-note NBC chimes