Mathematics also has a negative function: that is, to show that certain inventions and schemes are unsound and inoperative. A theoretical analysis by a mathematician may show clearly the impossibility of a scheme, with present-day systems at least, and, therefore, be of value in saving time and in eliminating efforts which can only end in failure. In a large research organization this function may be rather inglorious, and is not conducive to popularity. We mathematicians are much in the position of the lawyer to whom a business man complained that he didn't want a lawyer to tell him what he couldn't do—he wanted a lawyer to tell him what he *could* do.

In this talk, however, I cannot hope to have given you more than a mere glimmering of the functions and use of mathematics in electrotechnics. Its scope is, of course, limited; but where it can be applied it is a powerful and valuable tool. I think it is destined to play an increasingly important rôle as the technique of electrical communication becomes more and more refined and imposes higher and higher standards. The ideal worker in this field should be a master of physics, of mathematics, and of electrical engineering. Unfortunately it is barely possible to be a master of one branch of learning, to say nothing of three; so most of us have to be jacks of three trades and carry on as best we can.
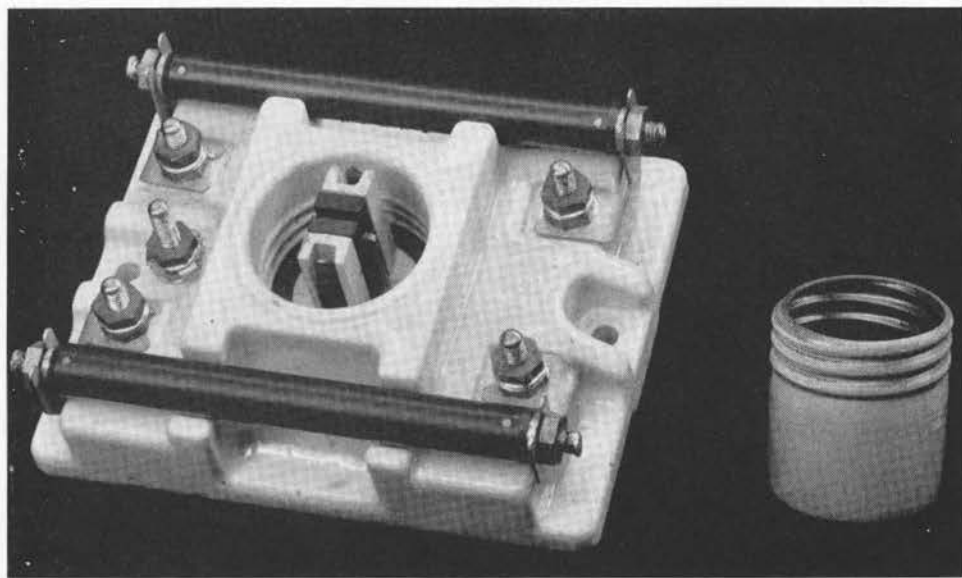
A New Station Protector

In keeping with the trend toward greater compactness, a new telephone station protector, coded No. 98A, has recently been made available to supersede the No. 58AP protector. Its dimensions permit it to be installed on the conventional six-inch wooden floor beam without projecting below the edge of the beam and without the use of a supplementary backboard