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POST OFFICE

tele **communications**

JOURNAL

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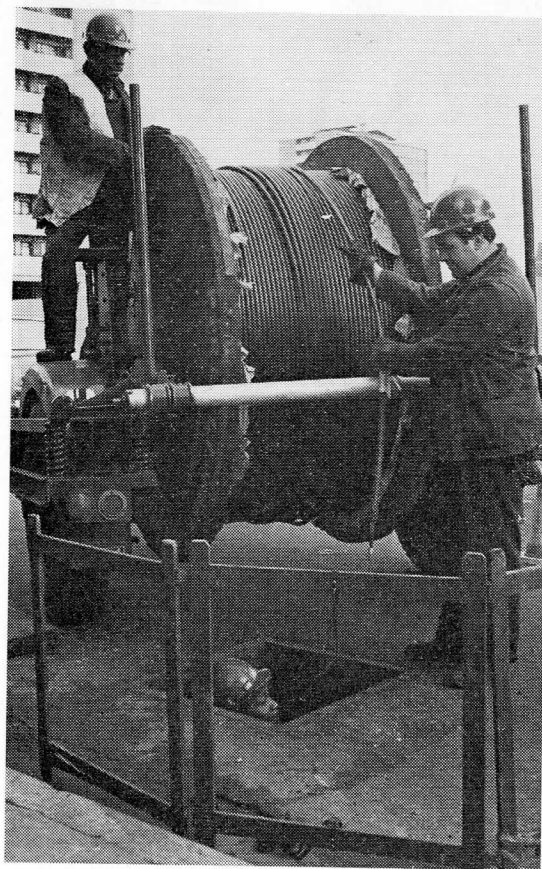
AND

SIXPENCE

SPRING 1968

THE PROGRESS OF CCTV

By E. A. KINGSLEY



◀ A cable gang draws in closed circuit television cable for schools in the Clerkenwell area.

POST OFFICE activity in the field of closed-circuit television is moving rapidly towards the provision of large permanent networks, particularly for use in commerce and education.

The most recent advances involve the placing of an order to connect up to 300 offices in the city of London and a scheme to transmit educational television programmes to about 1,300 schools in Inner London.

Negotiations for the London offices project, which it is hoped to complete in 1969, are entering their final stages. The scheme will involve linking the brokers and jobbers at the Stock Exchange with their London offices on an 18-channel, 625-

line vision only closed-circuit television network. The Post Office plans to provide nearly nine miles of co-axial cable for the TV links.

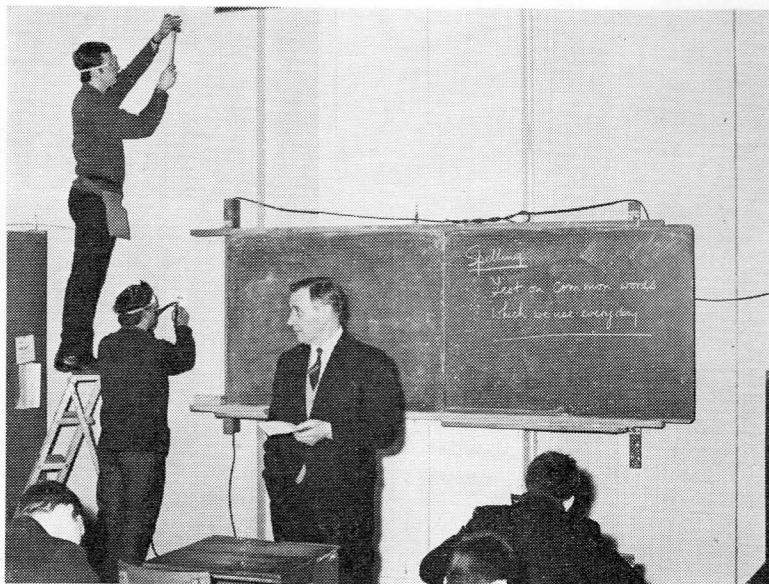
This project is dwarfed by the very big scheme which the Post Office plans to undertake for the Inner London Education Authority in setting up closed-circuit television links to carry educational programmes from a central control studio to some 1,300 schools. It is believed to be the biggest of its kind in the world.

Thanks partly to a new type of co-axial cable which the Post Office and the manufacturers have developed, the Inner London Education Authority will be able to transmit the programmes on seven channels simultaneously. Two channels, it is planned, will relay BBC and ITA school programmes and the rest will be used for the Authority's own productions.

Work on the Inner London scheme is to be carried out in three stages. The first, which it is aimed to complete by the autumn of 1968, is now going ahead, with London Telecommunications Region's engineers drawing in and jointing the cables and wiring inside the schools to the classrooms where the programmes will be received. It is hoped to have the scheme in operation in 1970.

Such schemes are not being confined to London. In recent months negotiations have taken place with education authorities elsewhere and as far apart as Plymouth and Chelmsford for similar projects. In each case, planning has now reached an advanced stage. A number of other education authorities have also begun to consider the possibility of transmitting educational programmes by closed-circuit television to their schools.

LTR technicians installing internal wiring for closed-circuit television at the Edith Cavell School, North London while pupils get on with their spelling lesson.



The new co-axial television cable

The new co-axial cable which is being used in the Inner London educational programme scheme differs widely from that normally used for telephony and the national television network.

It is in two sizes—one pair .345 inch diameter and one pair .620 inch diameter—and consists of a single copper centre conductor in a solid polythene core surrounded in turn by an argon-welded outer copper conductor and a black polythene outer sheath. It is relatively rugged and can be used in

local ducts.

The method of jointing successive lengths of the new cable is akin to the technique used in submarine cable laying. The centre copper conductors are first brazed and a mould is then placed around the joint. Elements in the mould heat the polythene to melting point and the liquid polythene is then injected into the cavity. When the polythene has set, the outer conductor is jointed and the over-sheath replaced.

