

only two days, while the limestone plateau on the approach to the Leonard Murray Mountains, the "cruel tract" of needle points and razor edges, which cost him eleven days arduous and painful travel, was crossed in fifteen minutes. No less significant was the accuracy with which it was possible to observe and distinguish the tracts and types of country described in the record of the original exploration. The account of the survey given by Mr. Lewis Lett (*The Times*, April 25) fully bears out Mr. Hides' description of the country as "a wonderland". In its isolation, it should prove the happy hunting ground of the future for the indomitable anthropologist.

#### Mummification in Egypt

AN interesting discovery, which it is thought may prove of considerable importance for the history of mummification in Egypt, is reported from Cairo. In a tomb near one of the pyramids opened by Prof. Selim Hassan, of the University of Cairo, has been found the body of a pregnant woman completely wrapped in bandages. She was the wife of Sechem Nefer, governor of a province under Chefren, the king of the Fourth Dynasty (2650 B.C.), who built the second pyramid at Gizeh. This, it is stated by the Cairo correspondent of *The Times* in the issue of April 21, is believed to be the oldest mummy known. In another tomb, that of Knem Baef, a son of Chefren, is a large white sarcophagus, not yet opened, upon which was found a gold necklace three feet long, with beading of carnelians, amethysts and turquoises, and ivory and gold finger sheaths. A third tomb was found to contain the mummy of a man completely wrapped in bandages with the exception of the head. The earliest date at which mummification was practised in Egypt is at present somewhat obscure. It is possible that even so far back as the First Dynasty some attempt was made to ensure preservation of the body; and in the Second Dynasty the corrosion of the linen bandages in which the bodies are wrapped has been thought to be due to a practice of smearing the corpse with natron. Similar effects have been observed in burials of the Third and Fourth Dynasties. The full process, involving removal of the internal organs of the body, appears in the Fifth Dynasty. Details of the process applied to the preservation of the body of the wife of Sechem Nefer consequently will be of the greatest interest.

#### Telephones for Use in Apartment Flats

THE problem of installing a system of telephones in a block of flats differs in one important respect from a private telephone installation such as is used by a large business organisation privately owned. Flat dwellers, although resident in one building and indirectly employing a common staff, are independent members of the public. Hence in those countries where the provision of telephone communication is a monopoly either of the State or of companies acting under charter, the establishment of a system which enables tenants of flats to communicate with each other would be illegal. A telephone system for flats

does not provide for intercommunication between tenants. The objects are to obtain immediate communication with the hall attendant and in some cases with the kitchen, garage and administrative office. In the *Osram G.E.C. Bulletin* of February, a telephone system is described in which the connexions are made to a 'reply panel' and not to a switchboard. It is designed to operate on the standard A.C. mains supply, a small power unit supplying direct current for speech and lamps so that no batteries are required. The 'buzzer' is also operated from the A.C. mains and hence the possibility of interference with radio sets in the building is removed. A picture is shown of a typical reply panel equipped for forty lines to flats. In addition, there are four service lines enabling the flat lines to be connected with all service lines, and ten 'tie lines' giving connexion when wanted to other panels. Each flat has a connecting plug associated with a calling lamp: there is also a buzzer on the panel giving an audible signal and thus relieving the attendant from the necessity of paying attention to the board except when his services are actually needed.

#### Electrical Communication in Japan

IN the February number of *Nippon Electrical Engineering*, published quarterly in English by the Institute of Telegraph and Telephone Engineers of Japan, the present status of Japanese broadcasting is discussed. It started ten years ago, and there are now 2,300,000 subscribers. Japan has a long and narrow configuration consisting of several islands the centres of which are covered with mountain ranges, so that conditions for broadcasting are very unfavourable. In this case it is much more effective to distribute a large number of low-power broadcasting stations over all the region than to erect a few high-power stations. The plans based upon a low-power many-station principle are being progressively realised. At the same time, in order to compete with other countries in international communications and to protect Japanese listeners against local interference, it has been decided to instal two high-power broadcasting stations, with 150 kilowatts of antenna power each, on the outskirts of Tokyo. It is computed that the field strength in Tokyo will be more than 200 millivolts per metre and will be ample to overcome any background of noise. All the equipment required for the stations can now be made locally. The Japan Broadcasting Corporation (B.C.J.) has built a special laboratory for studying radio technique. It has investigated apparatus for noise elimination and has made a direction finder for detecting the origin of noises. It is engaged in researches on television and is carrying out special experimental investigations on photo-electric tubes.

#### Applications of Photo-Electric Cells

AT a meeting of the Illuminating Engineering Society held on April 8, three papers were read on the uses and characteristics of photo-electric cells. R. C. Walker described the various types of light-