## 5WITCHERAFT

32A The Stronger Sets new standards in world telephone practice

# PRINCIPLE PRE-EMINENT

Strowger research workers, with that desire always to be ahead of telephone service developments which has ever been characteristic of them, have long been striving to create a better mechanism.

To this end they were even prepared, if a better operating principle could be discovered, to abandon the two-motion principle which has so long been the bedrock of the Strowger Automatic Telephone System-already serving the needs of telephone subscribers of 66 countries.

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No finer tribute can therefore be paid to the excellence of this principle than the fact that, after intensive investigation and exhaustive trial of every promising alternative, the designers have evolved an entirely new mechanism which, although possessing many advantages over its predecessor, again utilises the principle first enunciated 40 years ago.

Following practical trial under rigorous service conditions, the new Strowger Switch has been adopted by the British Post Office, the South African and Australian Post Offices, the Indian Government, the Bombay Telephone Co., the Polish State Telephone Administration and other important telephone authorities, all of whom have placed orders for exchanges of varying capacities.

Final Selector with P.B.X. facilities 'Demand'' Circuit Finder.

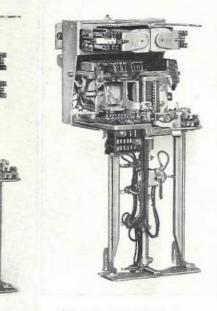
Cord Circuit Finder for associating Thermionic Repeater with Trunk lines

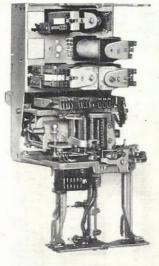
The necessarily brief description of the new Strowger Switch contained in these few pages, obviously cannot do justice to such an outstanding achievement in the field of Telephone Engineering. Interested individuals will wish to have the fullest possible details, and they are invited to write for the comprehensive descriptive information which is available.

Detach these spectacles at the perforation and use them to view the reproduction of the New Strowger Switch on the cover of this advertisement.

Hold the spectacles close to the eyes and place the reproduction in daylight or strong artificial light at a distance of 9 to 12 inches and you will observe that the colours Elend and a three-dimensional effect results.







Group Selector 100 Outlet,

Subscribers' Line Finder.

Group Selector 200 Outlet.

#### CONSTRUCTIONAL ADVANTAGES OF THE NEW STROWGER SWITCH OVER ITS PREDECESSOR.

1. It is less than half the overall size. (a) Racks therefore occupy less floor space and (b) Building economies can be effected.

It operates at nearly twice the speed. Any one of 2,200 contacts can be selected in 600 milli-seconds.

(This performance is beyond the capacity of any high-speed uni-selector.)

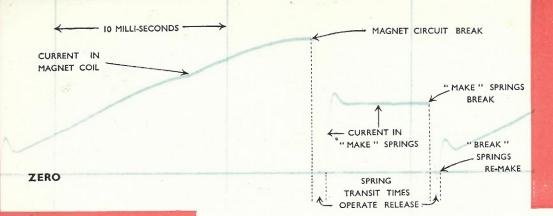
3. The bank capacity has been increased three times.

(Incidentally the number of contacts in the bank multiple is more than double that provided by any uni-selector and greater than that of any known power-driven selector).

All adjustments can be made with the Switch in position. The Switch can be instantly withdrawn from position, and when being replaced, it is self-locatingrequiring no accessory latch, bolt, or nuts.

5. Its component parts are manufactured to finer limits, which results in (a) Permanence of adjustment.

(b) Reduction in Maintenance Costs.



The illustration represents an Oscillograph record of the relation between the Rotary Magnet and its associated Interrupter spring in performing the operation of moving the wipers from one bank contact to the next. It is an example of the numerous recorded observations which have been conducted during the development of the new Strowger Switch, and is typical of the minute investigations regarded as indispensable in the Strowger Works Laboratories.

The new Strowger Switch has been developed over a period of six years, during the latter part of which it has undergone the most searching and strenuous tests which experts in the Strowger Laboratories could devise.

These tests have been applied to the complete Switch, examining its capabilities as a piece of telephone mechanism; to each individual component of the Switch, proving its ability for the detail function which it has to perform; and to the suitability of the raw material used, ensuring that no metallurgical limitations or weaknesses should arise to mar the continuous operation of the Switch.

#### THE NEW STROWGER SWITCH ON TEST-

A number of factory-produced Switches, taken from stock, were subjected to a "life-test" of 2 million cycle operations representing 75 years of actual service. They were then minutely inspected and, showing no undue signs of wear, it was apparent that they could have borne many more millions of operating cycles. Therefore, the performance of the new Strowger Switch in years to come requires no further comment.

ROTARY

INTERRUPTER SPRINGS



#### -AND IN SERVICE

Proven although the new Strowger Switch has been in test-rooms—proven until its excellence of design and construction out-wearied the efforts of its own creators to put a limit to its capabilities—proof of its efficiency in actual service is equally important, for it shows that the confidence of the responsible, impartial telephone experts who authorised its installation has been fully supported.

The new Strowger Switch has now been in operation for more than a year in Metropolitan and Rural areas, linking and disconnecting subscribers with the swift, accurate precision peculiarly its own. One of the exchanges, in addition, has been unattended, the Switches—with the exception of occasional brief maintenance visits covering but a few hours per week—being left to carry out their work in mechanical isolation.

### AUTOMATIC ELECTRIC CO., LTD.

STROWGER WORKS, LIVERPOOL.

MELBOURNE HOUSE

ALDWYCH

LONDON, W.C.2.

Export Distributors;

THE INTERNATIONAL AUTOMATIC TELEPHONE CO., LTD. NORFOLK HOUSE, NORFOLK STREET, STRAND, LONDON, W.C.2.

and they are invited to write information which is available.

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