



## William Yorath Lewis 1874-1961



W. Y. Lewis and workforce, Southend demonstration site, 1923



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3

### Life cycles in parallel

- 'Never-Stop' – kept alive for sixty years
- Champion and driving force:
  - William Yorath Lewis 1874 – 1961
- Lead Designer:
  - Benjamin Radcliffe Adkins 1872 - 1957
- Both worked on major projects, including:
  - Great Northern and City Railway [opened 1904]
  - New York East River tunnels [opened 1908]
- Both had careers in industry:
  - Lewis – boiler manufacture and design
  - Adkins – mechanical and petrochemical design
- Never-Stop became a significant 'hobby' for both men – supported by their families – for the rest of their lives.

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4

## Paris Exposition 1900



Outer anti-clockwise circuit, 3.6km in length, two-speed moving platform

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5

## Emergence of the idea

- Began in early 1900s:
  - Lewis: work experience at Paris Exposition
  - Adkins: design talent and experience in industry
  - Mutual enthusiasm and appetite for a challenge
  - Meeting a need, or finding a use for a solution?
- First patent application 1902
  - Key enduring feature is the lead-screw with pitch to suit local speed and separation

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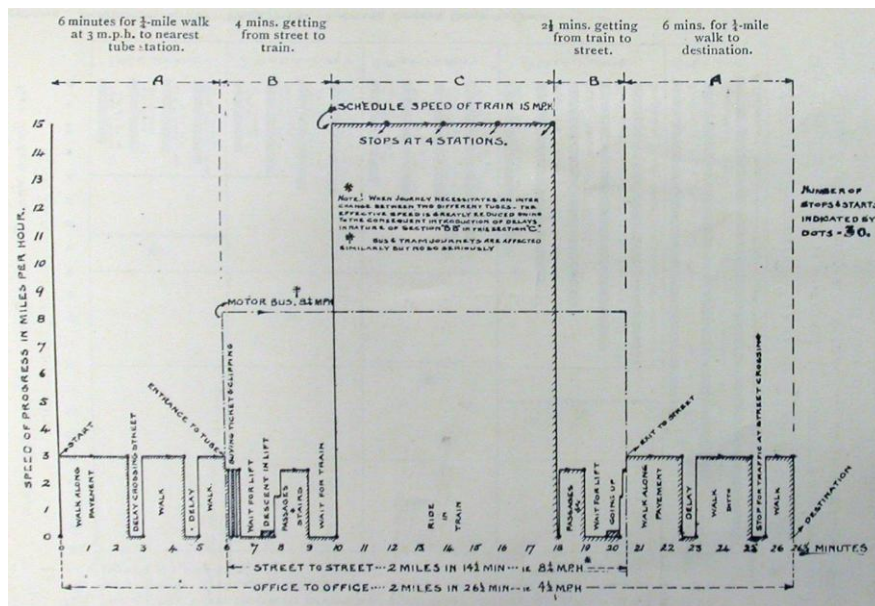
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## Growth – seeking a purpose

- Further patents
- 1909 – escalator-like variant
- 1911 – foundation of Never-Stop features
- 1912 – aeroplane launcher
- Campaigning and Placement
  - ‘The London Traffic Problem’
  - ‘Intermittent’ versus ‘Continuous’ transportation
    - Papers, talks, letter-writing and meetings
  - Seeking to influence

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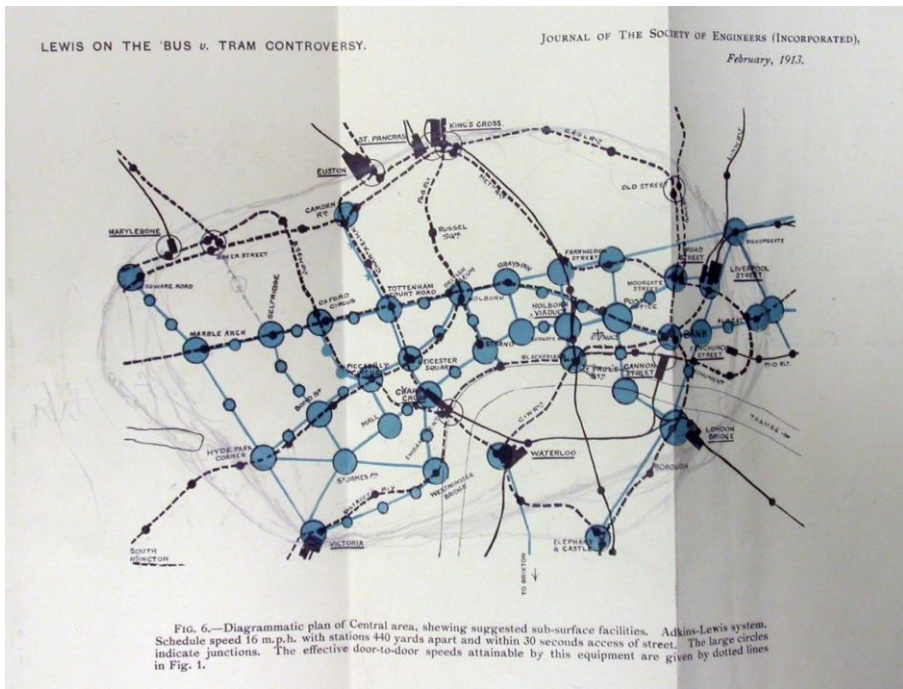
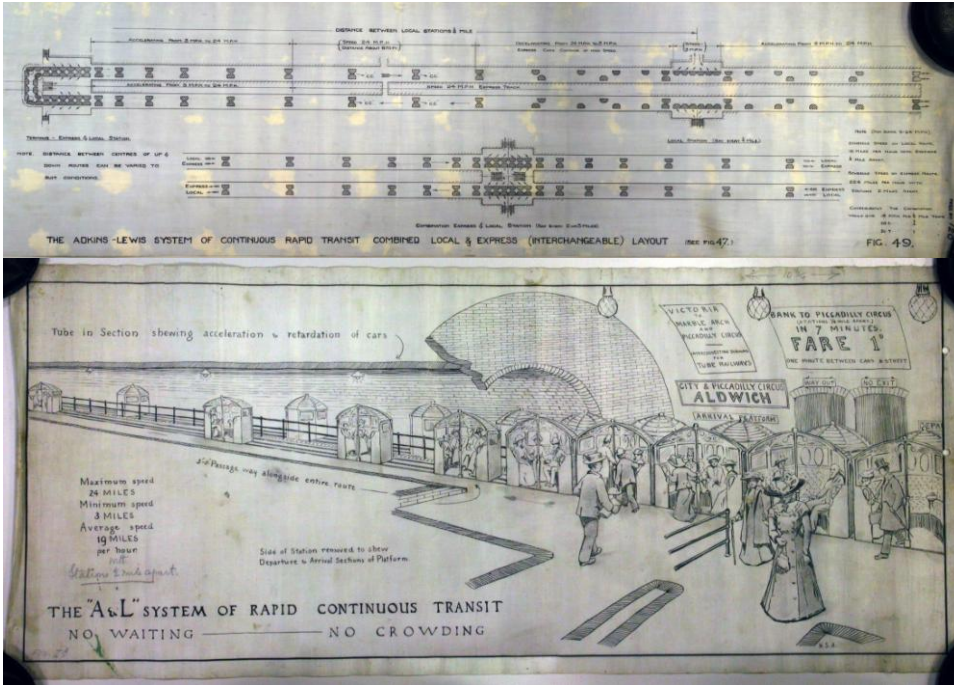
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Typical Urban journey time breakdown. Figure from paper to RSA in 1911: “Continuous Service Passenger Transportation in Relation to the London Traffic Problem”.

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8



## Never-Stop in practice

- Experiment in 1910
  - Ransomes & Rapier works, Ipswich
- Small-scale [300 yards] circuit in 1923
  - Kursaal Amusement Park, Southend
  - Used to demonstrate capability for Wembley
- British Empire exhibition, Wembley 1924-1925
  - 1.5 route miles, 85-87 vehicles in service
  - Three intermediate board/alight points
  - 1.5 mph to 12 mph speed range

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11

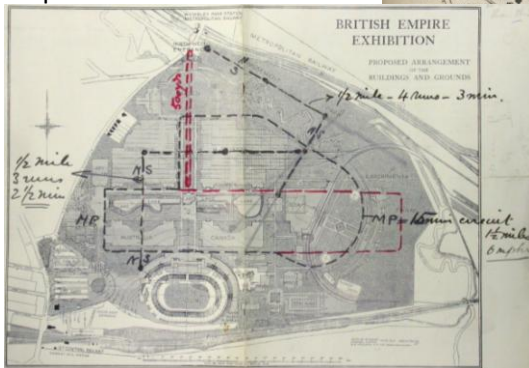
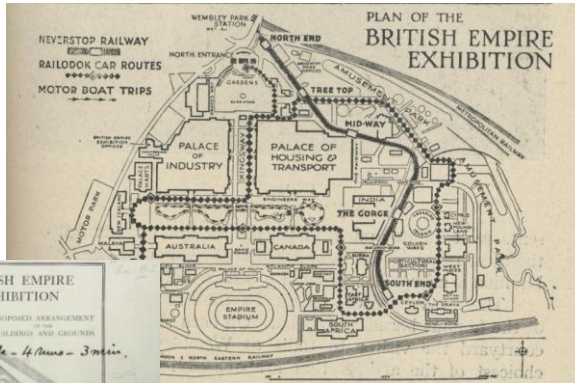
1923 Southend  
demonstration



12

## The Empire Exhibition 1924-1925

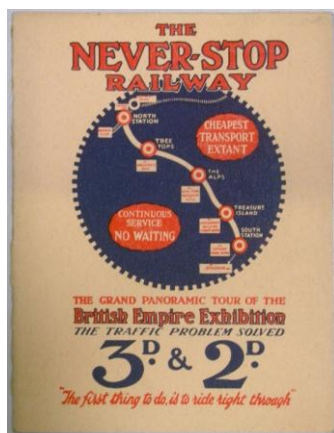
- Actual Wembley route >
- Preferred by Exhibition planners
- sub-optimal gradients, sharp curves, unsuited to Never-Stop, poor traffic potential



- < Lewis sketch for Never-Stop [NS] route options
- Straight runs, Southend-style, long-term potential
- Moving Platforms [MP]

## Wembley operation

- 2,000,000 passengers
- 1,000,000 car miles
- Over 700,000 round trips
- '...without failure...'
- '...without any sign of distress in working parts...'



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## Separate ways

- Wembley installation is wound up
- Staff and expertise dispersed
- Lewis and Adkins pursue their own careers
- No further orders, little interest
- Patents kept alive
  - Seven further patents had been granted in 1920s for specific design features

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15

## 1950s activity

- Lewis working with Adkins again from 1951
  - Further development of designs
- Emerging transport needs
  - City short-distance links, notably New York
  - UK – Heathrow, Victoria Line, Bank Travolator
- Networking and lobbying
  - American contacts from past work
  - UK Government ministers, public figures
  - Industry, trade associations and publications
  - Patents maintained

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16



## Decline

- Despite many attempts to be ‘noticed’, none resulted in adoption of Never-Stop
  - BBC interviewed Lewis
    - “Tonight” 30 September, 1957
  - Adkins continued to produce drawings until late 1957
  - Transport Ministry rejection of Lewis case
- Patents relinquished in 1960
  - Acceptance of the end for Never-Stop

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17



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18



16 April, 2001 – demolition of the last concrete track section and A-frame supports, North End Road, near Wembley Park Underground station

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19



“...But only a practical trial in public service ... can determine whether or not the scheme is feasible.

I shall not rest until that is accomplished ...”

WYL draft reply to Frank Pick, December 1920.

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20

## Principal sources

- Science Museum/NRM York  
– Yorath Lewis Archive WYL 1961-257
- ‘Passenger Conveyors’  
– Tough, J. M. & O’Flaherty, C. A., Ian Allan, 1971