

LONDON RAPID TRANSIT.

ADVANTAGES AND FAULTS OF THE GREAT EASTERN SYSTEM.

Engineering Problems in Its Construction and Their Solution—Opposition of Property Owners Along the Line and Difficulties in Tunneling Through Sand and Gravel—Automatic Lining and Working in Compressed Air—The System Successful in London Clay, but Might Fail in Other Geological Formations.

London, Sept. 12.—The junction of King William and Arthur streets with the end of London Bridge, close to the spot where London's eastern, pointing at the site.

It is perhaps the busiest place on earth. From daylight until dark traffic is all but congested on the bridge and in the near-by streets. The procession of horse, foot, and wheel is continuous. Every species of vehicle, from vast

four-horse merchandise vans, tandem market wagons, lumbering butchers' and brewers' carts, to the elegant equipages of great merchants and financiers, the dog and mail carts of smart young hussies, the "hoppers" of the old men, and the coster monger's stinky donkey wagon.

Right on this tumultuous corner, however, there is a door where one may enter, pay two pence, drop down over a hundred feet into the bowels of the earth by the electric right, and under the bottom of the Thames by electric railway, and bob up serenely on another elevator almost three and a half miles away, in the comparative peacefulness and quiet of suburban Stockwell, where dwell myriad clerks, tradesmen, and working people of all cities.

The City and South London Railway is but a small, but a very important, part of the system. It taps a populous, respectable, and quite uninteresting part of London, chiefly inhabited by the city clerk and shop assistant class. Its northern terminus is at the approach to London Bridge on the City side, where the traffic is slow and the ground is hard.

The great bulk of our traffic," said Mr. Stern, "is done early in the morning and late in the afternoon. The morning working parties back and forth. Then the elevators and trains are crowded to their full capacity at every trip."

A blast of cold air, almost sufficient to take one's hat off, from the black mouth of the tunnel was the precursor of the arrival of the train, which came in a single track between two platforms, so that the incoming passengers got out on one side and the outgoing ones got in on the other. As they took their seats in the car the electric lights suddenly went out, but after a second's delay returned again as suddenly.

The engineer who devised this bold scheme of railway extension was Mr. J. H. Greathead, an old-fashioned, but a very practical, man, who has often been mentioned in connection with the construction of the tunnel, and who has been the chief promoter of the project.

entirely by hydraulic elevators, as it would be hopeless to expect people to descend and ascend on foot sixty or seventy feet while omnibuses and tram cars were running on the surface. The traction is entirely electrical, and having been a stringent provision on the part of the legislature that steam locomotives should not be used.

archaeological law by an opposition lawyer, and gravely opposed by Parliament as a valid plea in the case of the proposed improvement. This notorious lumber of the past is often very embarrassing to the present.

The business men of London and of New York stand on a very different footing in the matter of daily access to their offices.

New York is bounded on three sides by water, and though that has produced a ferry service unrivaled by any other city in the world, there remains a land approach on one side.

The concentration of business, formerly diffused among many districts, has now become concentrated in a few blocks, and every neighborhood was self-contained, and the great majority of the population lived in its own shop, and living over it, often with his apprentices and assistants. Now the tradesmen

of the town have their suburban residences and come to town by train in the same way as the merchant, lawyer, or stock broker. In England, however, as in the United States, the general prosperity of the last quarter of a century

has been succeeded by a depression in a few years, and purchases a country seat which an impoverished baronet has thrown on the market. He is succeeded by his assistant, who a few years before has been going round for orders

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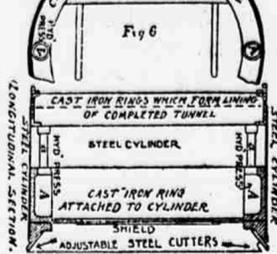
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The method of operation is as follows: The tunnel is lined with cast-iron rings, which are pushed forward in a continuous line.

For getting through rock, although no rock was met with in the course of the City and South London Railway, Mr. Greathead has devised a method which is very similar to that described, although it has not been

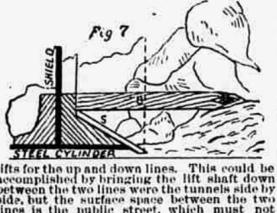
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claimed for the Greathead system. The train can run at speed almost up to the platform, and a quick stop can be made by shutting off power, so that the brakes have to be used very rarely.



to engineers, and will be apparent to any one who remembers that a locomotive has to be made more than three times as powerful as is required to keep its train going in order to give the extra pull for the start, and this two-fold extra power is absorbed in the brakes in stopping at the next station.

Another reason why the up-and-down traffic should be effected in horizontal space, instead of being done in a vertical shaft, is that the rings of lining are composed of six segments, in addition to which there is a narrow groove between the rings.



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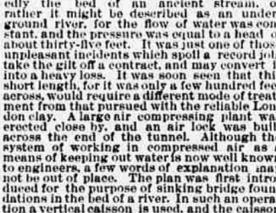
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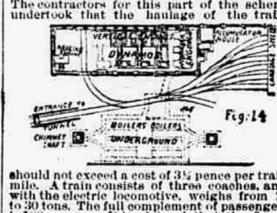
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Simpson, Crawford & Simpson.

Particularly Interesting Reading for Intending Buyers of Cloaks, Suits, Furs, Millinery Goods, &c.

Ladies' and Misses' Cloaks and Millinery Department.

Supplementary Opening of Imported Bonnets, Round Hats and Turbans. Owing to the late arrival of many of our Imported Models, we have decided to make a supplementary exhibit on Monday and Tuesday, Oct. 19 and 20, when we shall show the very latest and choicest creations of the leading modistes abroad.

We shall also display many new and original ideas in DRESS and SUIT HATS from our own workrooms, marked at very low prices.

FELT GOODS. 10,000 dozen best quality Ladies' Misses', and Children's Fur Felt Hats and Bonnets, in all the newest shapes, styles, and colors, from 98c. upward.

Special Ribbon Sale. 850 pieces Fancy Novelty Stripe and Brocade Ribbon, new choice goods of superior quality, 3 and 4 inches wide, all good shades, at 25c. per yard; worth 65c. and 75c.

Feather Boas and Collars. 1,000 dozen Feather Boas and Collars, in all styles and grades of Ostrich, Coque, and Hackle Feathers, also many choice imported novelties in Feather and Marabout effects for neckwear, exclusive with us.

SPECIAL VALUES. 300 dozen Coque and Hackle Collars, 13 inches long, at \$1.75 each; worth \$3.00. 75 Coque and Hackle Boas, 2 1/2 yards long, at \$5.98 each; worth \$8.75.

Ladies' and Infants' Underwear Department. CHILDREN'S CLOAKS (up to 4 years). In styles becoming to all children. Assortment too large and varied to describe.

Special Bargains for this Week. HANDSOMELY TRIMMED CLOAKS. At \$2.75, \$3.75, \$5.

INFANTS' LONG CLOAKS. In Cashmere and Lamb's Wool. At \$1.98, \$2.50, \$3.25.

INFANTS' Complete OUTFITS, 65, 68, 69 pieces.

Ladies' All-Wool Flannel Wrappers, in a variety of colors, at \$2.75; worth \$5.

The "Judic" Corset. Our Fall importations of this celebrated Corset are now on sale. We are the sole owners.

SPECIAL SALE. Chenille Portieres. 88 Chenille Portieres at \$4.79 pair. One lot Chenille Portieres, some plain, others with dado and fringe, heavy fringe top and bottom, regular \$3 quality, at \$4.79 pair.

111 Chenille Portieres at \$5.98 pair. One lot very fine Chenille Portieres, in Nile, Gobelin, Terra Cotta, Tobacco, Gold, and Garnet, with rich Grecian border and heavy fringe, regular \$11 quality, at \$5.98 pair.

114 Chenille Portieres at \$7.98 pair. One lot French Chenille Portieres, colored and over, in choice designs and figures, regular \$14 quality, at \$7.98 pair.

SPECIAL SALE OF BLANKETS. Housekeepers and hotel-keepers will find this an unusual opportunity to supply their requirements in Wool Blankets. Having been made by us on very advantageous terms (in many instances below actual manufacturing cost), the prices now quoted make them positive and absolute bargains.

10-4 Blankets, \$2.48 pair; worth \$3.48. 10-4 Blankets, \$2.98 pair; worth \$3.98. 10-4 Blankets, \$3.98 pair; worth \$5.25. 10-4 Blankets, \$4.98 pair; worth \$6.25. 11-4 Blankets, \$4.98 pair; worth \$6.25. 11-4 California Lamb's-wool Blankets at \$6.48 pair; worth \$8.50.

Extra large size Blankets at \$8.75 pair; worth \$10.50. Extra large California Wool Blankets at \$9.48 pair; worth \$12.50.

Down Comfortables. Full size French Sateen Elder Down Quilts, warranted not to shed feathers and fast colors at \$6.98 and \$7.48 each; worth \$8.75 and \$11.50.

Housekeeping Linens. Opening Fall Importations of Bleached and Cream Table Damasks, Napkins, Towels, Doilies, Lunch and Tea Sets with fringe and hemstitched, White Dinner Cloths with Napkins to match.

At 12c. each—Huck Towels, all linen, worth 15c. At 20c. each—Huck Towels, 22x44 inches, pure linen, regular price 25c. At 50c. yard—Bleached Table Damask, all linen, worth 65c. At 68c. yard—Bleached Satin Damask, 69 inches long, worth 85c. At 98c. dozen—5 Napkins, all linen, worth \$1.30.

At \$1.85 dozen—Large Size Napkins; regular price \$2.50. At \$1.10 each—Fringed Table Cloths, colored border, 2 1/2 yards long, worth \$1.75.

6th Avenue, 19th to 20th Street. 6th Avenue, 19th to 20th Street.