

# CARS UNDER THE HUB

**Boston's Subway Solves Congested Traffic Problem.**

**RAPID TRANSIT SECURED.**

Entire Work Has Cost the City Less Than \$7,000,000.

**SURFACE TROUBLE AVOIDED.**

New Line Will Be Put to the Practical Test This Month.

**INTERESTING ENGINEERING FEAT.**

is cooler in summer and warmer in winter than the outside air. It will be more agreeable to travel in winter in the subway than it would be on the surface. The motorist will encounter no wind, rain, or snow. There will be no noise to annoy. No children will be in front of the cars. No people dodging across the tracks oblivious of danger. Stopping and starting will occur only at the stations.

There is no grade crossing, where two cars may perchance come in contact. At Boylston street, where the Public Garden line branches off and the four track line ends, one track plunges down under the two tracks that come from the Public Garden. This descending track goes down forty feet below the surface and rises again to the common level of the line.

At present over 32,000,000 passengers are transported yearly over some portion of the route covered by the subway. It is estimated that the subway will increase the number to 60,000,000 passengers in less than one half the time now taken to traverse the route if on time. They will be relieved from the absolute uncertainty which now exists on account of frequent street blockades. They will move with the same certainty as on trains on a steam railway.

**Engineering Problems.** There has been no serious engineering difficulty encountered. There was an immense number of pipes to be removed and changed, but this work was merely a matter of time and detail. The most difficult

Emperor used to say to me occasionally: "Who? I would not care to be in your skin. Sometimes you seem to me like a rider who, while sitting his horse, tosses and catches five balls without letting one of them fall."

The subject which Bismarck discussed about two weeks ago with a visitor, most of whom were in the audience, was the readiness of German postal officials to surrender to the government any letters which it might call for. "In view of certain recent occurrences" is the phrase with which the Bismarck reminiscences are introduced, but the writer did not venture to state just what liberties Emperor William's government had been allowing itself with other persons' letters. Under the administration of Philippsohn, predecessor of the late Stephan, Bismarck said, it was perhaps possible, now and then, for the government to get, on demand, the letters it desired from the mails. Under Stephan it was more difficult to get private letters. These remarks by Bismarck give some food for reflection, when one recalls that Emperor William has placed at the head of his postal department Von Podbielski, a retired general, whose Prussian sense of loyalty dictates absolute obedience to the royal and imperial Commander-in-Chief.

The whole thing was done very neatly in the days of the old Third and Fifth, "said Bismarck. "There was even then a special office for such work; with several excellent officials representing the different

# AT THEIR LAST MORT

**West Side Market for "Second Class" Horses.**

**SELL AT LOW FIGURES.**

Three Dollars Will Purchase an Equine Remnant.

**COME FROM CAB AND WAGON.**

There are horses and horses," says the dealer in horseflesh, and it is the aim and object of the average buyer and seller to fight shy of such animals as have fallen victims to the various ills to which the equine world is heir, including that inevitable trouble,

but for the greater part of the time the yard is deserted. Sales Held Twice a Week. It is on Tuesdays and Fridays only that the market wakens into activity. Those are the days of auction, and from 10 o'clock in the morning until 5 in the afternoon the yard is a scene of bustle and excitement. On entering it one is struck by the fact that a long-legged secret has been revealed, an ancient problem has been solved. How many a horsekeeper, how many a benevolent property owner has guessed in vain at the answer which the place supplies. It is in the place the peddlers and "rags-of-iron" men get their horses. In the big yard is assembled a queer assortment, an active commentary on the faculty of equine existence, eighty per cent horses of all degrees of positive and comparative decrepitude, ranging from the fair to the presentable specimen just taken from the delivery wagon or the cab to the utterly discouraged and exhausted wreck whose visit to the place is not his first, second, or third. They stand about the inclosure in as many characteristic attitudes as they represent degrees of equine decay; some with uncertain knees bowed weakly forward, heads hanging, and watery eyes, paying no heed to what goes on about them; others more hopeful in appearance but scarcely more interested in the proceedings; and some almost spirited and fairly presentable.

So the interest is kept up, and the auctioneer's voice rises and falls as he coaxes, or waxes eloquent, or becomes shrill in rage at the inappreciative attitude of his audience. And the horses, good, bad, and indifferent, are disposed to buyers, who survey them dubiously or delightedly according as the price paid seems high or low after the excitement of the bidding dies away. The horses sold at the market come from all over the city. Seldom, indeed, does a country horse wander into the place, except when some speculative individual makes an expedient for the purpose and returns with a band of equine exiles from Illinois farms. For the most part they are animals which have served the days of usefulness in the higher walks of life represented by cab and delivery wagon service. Many have gone a step lower, have passed through the stage of express and peddler wagon driver, and returned for a last time to be sold for killing. These are the cheapest, and their price is dictated only by the value of their bodies. They touch the low-water mark of prices, and \$3 strikes a fair average. From this low figure the prices run up a closely graduated scale until they reach high tide with the horses of the best class, second class horses, to be sure, but those whose service has not yet broken their strength and

# INDIANAPOLIS TRAINS.

**Indianapolis Inventors Also Exploit a New System.**

**ROYSE IS THEIR NAME.**

Claim They Exhibited Method Prior to George V. Trott.

**HOW MESSAGES ARE SENT.**

**INDIANAPOLIS, Ind., Sept. 4.**—[Special.]—The invention of Mr. Royse for telegraphing to and from moving trains, and a system of telegraphing from station to station, falls far short of the invention of Messrs. W. A. and C. D. Royse of this city. The Royse brothers' system is a system which simply adapts the common Morse system of telegraphy to use on all trains, going away with all local telegraph stations so far as the duty at all times of the system is concerned. This invention surpasses that of Mr. Trott in that it simply makes every train a moving telegraph station, at all times in the day. The system is simple and is used by a train dispatcher and all other trains or station offices on the road. The invention of Mr. Trott puts a train in communication with the office of the train dispatcher, and the train must depend on getting switched to the main line by the station operator whenever it is desired to have connection with the dispatcher.

Another great difference is in the fact that under the system of Mr. Trott it would be necessary to keep many station operators on duty at all times of the year, while under the Royse brothers' station operators are dispensed with, except where business other than that of the train dispatcher is required. Mr. Trott's system requires two conducting rails and the other system requires only one.

**How the System Works.** The system invented by the Messrs. Royse is extremely simple and is so explained that it always surprises old operators to think that it has been so long in coming out. They use what might be termed a third rail placed in the middle of the track rails, and, of course, may be simply a soft iron strip laid in a wooden stringer. Each train is equipped with a relay of high resistance, not less than 1,200 ohms, and an ordinary telegraph key and sounder with a local battery to operate the sounder. The relay has one side connected to the main line, or third rail, and the other to the track rails, which form the return circuit. The key is connected in the same manner so that when the key is closed the relay is short circuited. There is a battery at each end of the track, which makes the line metals are connected to the railroad track and other metals to the main line. With this connection the train relay will stand closed when all keys are open, but when any key is closed the train relay will short circuit and open. It is simple enough to change the contact points on the local side of the relay so the sounder will close when the relay opens, and more you have the wiring thing. Stations may be connected in this way or the relays may be put in the main circuit as is now done in the ordinary system, but all keys must be connected the same as train keys.

The exhibition of this system was made at the Industrial Training School in this city, where the experimental work had been carried on, and was witnessed by a large number of railroad men, including many of the local train dispatchers. They all spoke highly of the invention. Chief Train Dispatcher Dickson of the Indianapolis Union railway company said:

"This whole thing is so new that it is hard to say what its possibilities are, but I can see nothing in the way of its success in doing all that is claimed for it. In the model it is perfect, and electrically there is no good reason why it should not work as well on a railroad. Its possibilities, if successful as it seems to be in the model, are almost beyond estimate. None but a train dispatcher can know the advantages it would be able to attain in minute to get direct communication with every train on the road. Any railroad man will readily see the advantages. Its simplicity and cheapness of construction are also a great recommendation for it. Any telegraph operator could fully understand and operate it."

**Every Train a Telegraph Station.** The Royse brothers' system is a system which makes every train a moving telegraph station, constantly in connection with every other train and with every office on the road. The Royse brothers' system is a system which is appreciated by any railroad man and most of the traveling public. Collisions would be impossible, and besides this, there would be no delay in the freight service, as in the case of a passenger train, getting laid up between stations with a hot box or other minor defects in the current. It would be immediately reported and the orders could be changed.

"The operation of this system," said W. A. Royse, "is so simple that it has never been put in operation. There have been many attempts to do what we now do, but so far as we know no one has succeeded. The problem has been unsuccessful, except as to demonstrating that such things can be done in several ways, all of which, however, have heretofore proved too cumbersome, too expensive and uncertain. We have considered all the plans that have been tried and have directed our efforts towards a simple, practical and economical system of telegraphy, and from a vast number of railroad men have said of our plan we believe we have solved the question in a way that is so simple that any ordinary manager could do it at the same time so inexpensive as to be practical in its use."

"Heretofore the effort has been more generally in the line of telegraphing communication with moving trains by means of induction in which plans there are not direct connections between the trains and the main line, and in which the current is made to cause an induced current in the wires on account of their close proximity. Mr. Edison's patents on one system of this kind were sold for one year for an inventor in favorable weather in connection with it is so easily affected by atmospheric changes that it is not expected by him or his associates to be of any practical value, complicated, too, and for that reason require an expert to manage it."

**Result of Long Study.** Telegraphic communication with moving trains is an old idea that G. D. Royse and his brother, W. A. Royse, of Indianapolis, have been studying for a number of years, in fact since he first began as a telegraph operator in the '80s. In the meantime he had practically opposed the matter, but he left the telegraphic service he studied for the ministry. He is a Methodist minister, and in one year was a pastor and has charge of Trinity Church, Crawfordsville, while in school at DePue University last winter he began some experiments in telegraphy, and considerable ideas of doing something by the use of induced batteries. He then came to the city and secured the assistance of his brother, W. A. Royse, who was then the assistant city editor of the Indianapolis Journal. Together they worked for nearly two months, spending all their time in laboratory experiments in telegraphy, and the result was a system of telegraphy which is simpler and less expensive than any other system of telegraphy that has ever been proposed.

**Longevity in England.** Statisticians show that though the rate of England is highest of any country of the kingdom, London, Scotland shows a higher rate of longevity. The average age of the people in Ireland is the highest of any country.

TO THE HIGHEST BIDDER AT 7:30

FROM ARIZONA.

A PULLER.

A CRITIC.

"MOTHER THOUGHT WE HAD BETTER SELL 'EM"

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# CHARACTERISTIC SCENES AT AUCTION SALES OF THREE DOLLAR HORSES.

portion of the work was on Washington street. Here the line burrowed down ten feet below the foundations of the buildings on either side to within two feet of the line of the basement walls. The work was conducted along Tremont street with the full tide of traffic going on overhead. The total amount appropriated to meet the expense of the subway was \$7,000,000, which the City of Boston provided the greater portion. Some of the amount comes from the State of Massachusetts. The commission has performed its work economically and honestly. The total cost of the subway will run under the appropriation more than \$1,000,000. No jobbery has been charged during the progress of the work.

# BISMARCK'S TABLE TALK.

**He Hates Chamberlain—English Diplomacy Is False and Hypocritical.**

Although the Bismarck interview with the interviewer seems to be a thing of the past, the visitors who see the old Chancellor in his Friedrichsruhe home, however they come away invariably with interesting batches of his table talk on politics, diplomacy, his big pipe, his career, and his family. The man whom we have just seen is now a lonely old man, his only companion now is Joseph Chamberlain. In a recent discussion of South African affairs he applied some carefully selected invective to the stringing of politicians who administer the London colonial office.

"In general," he remarked, after closing the subject of Chamberlain, "it is noteworthy that a difference exists between the character and conduct of the Englishman in private life and those of the Englishman in politics. The Englishman in private life is respectable and trustworthy. To call him the lie is the worst insult you can offer him. As a politician and diplomat, however, he is at the other extreme. English diplomacy lacks in every respect the characteristics of English private life. Its most striking characteristic is its hypocrisy. It uses all the means which the individual requires."

"In France, of course, they have not been always very choice of the means they adopted a diplomatic end; for instance, in their policy toward the United States, their policy toward every nation that has been abroad they have been as cruel and brutal as the English; violence and treachery have been part of the policy, and then, just as with the English. However, to call them the lie is the worst insult you can offer him. As a politician and diplomat, however, he is at the other extreme. English diplomacy lacks in every respect the characteristics of English private life. Its most striking characteristic is its hypocrisy. It uses all the means which the individual requires."

Returning to the subject of central European politics the Prince said: "It makes me sad when I see things going badly for us, but I cannot do anything. All at events, I find it pleasant to hear, when I read of this or that complication, to think I am not responsible for it.

Of course, it would be impossible for me to give advice in most cases, supporting I was asked to give it, because I would not be able to watch officially over the execution of it. Politics is more art than science; it can not be taught; a man must be born to it. The best advice amounts to nothing if it is not carried out properly to the circumstances. It is the same as in riding, Call out to a man on horseback the best advice in the world, yet if he has not got it in him and if he doesn't suit your advice to the horse he rides, you will see the horse get the best of it."

Referring to the Russo-German neutrality treaty, which existed contemporaneously with the triple alliance, the old Chancellor said: "Of course it was complicated—all politics are complicated. That matter, the old

German governments. One would melt the seals with a hot knife, another would steam the envelopes made fast with paste; a third would open the envelope; a fourth would copy from the letters any extracts that were needed, and a fifth would close the envelopes again.

The amount of draft necessary to start his big pipe has become a cause of pain to the old Chancellor. The exertion aggravates his neuralgia, as anybody who has sucked smoke through three feet of Wechselholz and china can well understand.

"When the thing is once lighted I am all right," explained the Prince; "but the lighting and the hard puffing start my neuralgia regularly. Generally my grandsons and my son-in-law help me out. Now they are not

place," and we do a business in nothing else." Men move about among the horses or gather in little knots discussing their merits. They are queer looking men, many of them, almost as queer as the horses. They are peddlers, "rags-of-iron" men, expressmen, and followers of similar vocations, looking for bargains. They examine the horses shrewdly and they watch closely the auctioneer and their rivals during the bidding. They know what they came for and they show it. Many of them have already concluded their purchases by private dickerings and are interested in the proceedings merely as spectators and advisers to those who have not yet bought. Indeed, though the sales are announced as auctions and the auction-

brought their ribs into prominence. For these, under the excitement of the auction; as much as \$80 is sometimes paid, but that is an unusual price, and the majority of sales mark far below that figure. There are dull times at the market at present, but the casual visitor would not detect the fact. With a hundred horses in the yard it makes no difference to the spectator that less than half of them are ordinarily sold. The activity and the queer features of the place are the same, and it possesses the novelty of the scene of the "nobles" animal, its nobleness a thing of the past, selling under the hammer at a price a little higher than that of the halter by which it is led away.

# WAS GIVEN HEROIC TREATMENT.

**Detroit Citizen Tells of Country Remedies for Supposed Internal Injuries.**

"Even novices in medicine run to the experimental, as I have occasion to remember," says a citizen whose word is never doubted in Detroit, "I visited an old aunt of mine this summer, and, while viewing rural enjoyments, I fell out of a cherry tree. There seemed to be a general jarring and some top of the system that I thought demanded the attention of a doctor, but aunt prides herself on knowing more than half the men who practice medicine, and is commended the old sound of economy. She would bring me round all right. It would be a shame to send for a high priced physician just to relieve a few bruises. Of course, I was sore internally, for that was to be expected.

The first remedy administered was catnip tea, which I took in such rebellious spirit, begotten of childhood experience. That wild onion poultice were scattered judiciously over my person. Failure of relief caused my aunt to try a remedy of her own, a few cups of ashes, the ly distilled becoming so aggressive that I kicked the bucket over and repudiated the treatment.

This was accepted as a pronunciation of brain fever, and a red hot mustard draft was applied to the back of my neck. To the same end my head was thoroughly soaked with a strong solution of common salt. The complaint as to my side, and a poultice of grated horse radish was the answer. In response to a demand for some exhilarant I was given a quantity of whiskey. I was to insist on brandy, but this was another brain fever symptom, and more spring water was called into requisition. At length I surprisingly hired a neighbor to go for a reputable physician.

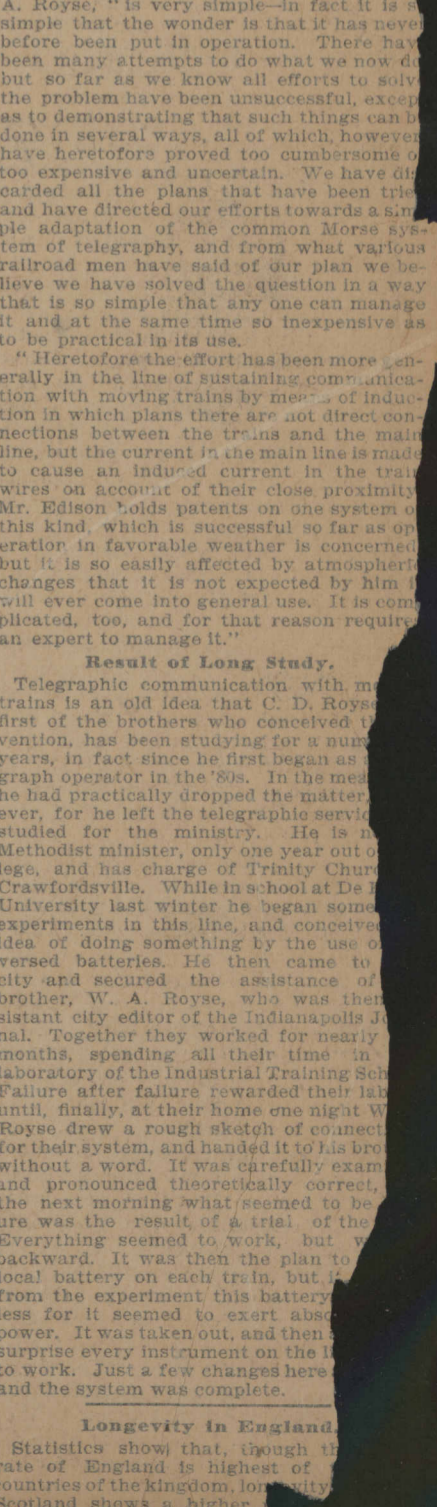
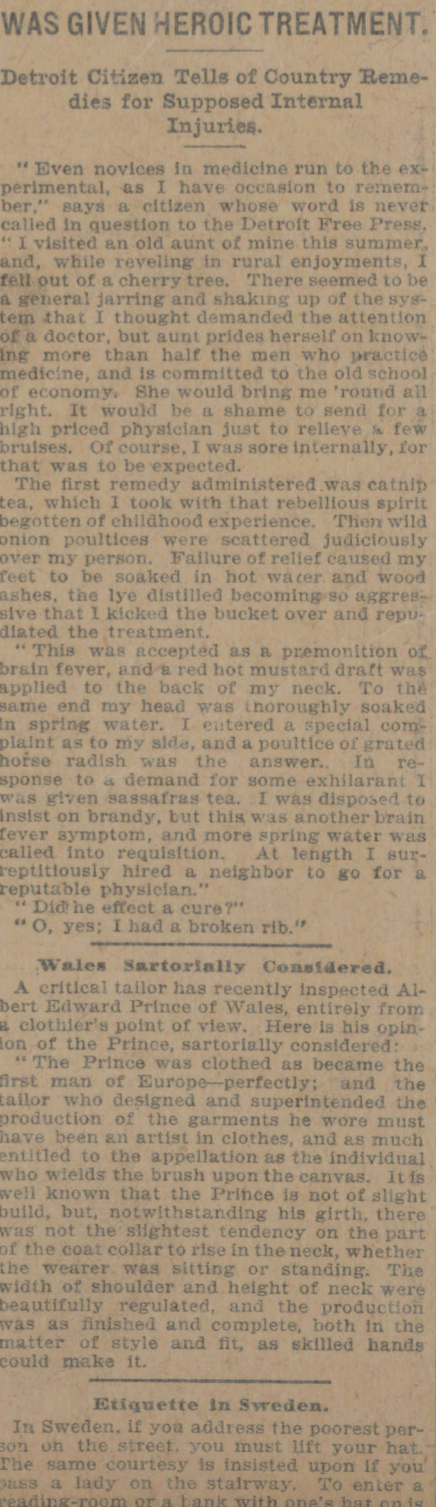
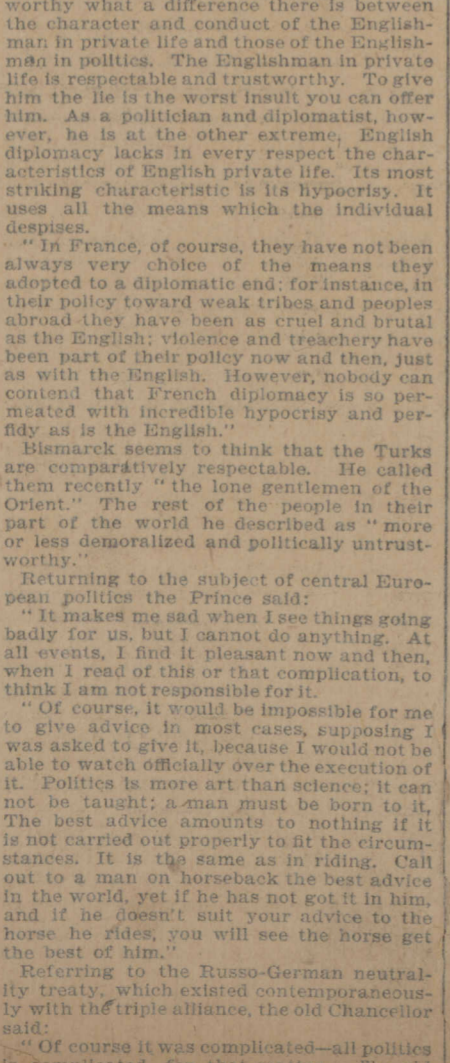
"Di he had a cure?" "O, yes; I had a broken rib."

# Wales Sardonically Considered.

A critical tailor has recently inspected Albert Edward Prince of Wales, entirely from a sardonic point of view. Here is his opinion of the Prince, sardonically considered. "The Prince was clothed as became the first man of Europe—perfectly; and the tailor who designed and superintended the production of the garments he wore must have been an artist in clothes, and as much entitled to the appellation as the individual who made the brush upon the canvas. It is well known that the Prince is not of slight build, but notwithstanding his girth, there was not the slightest tendency on the part of the coat collar to rise in the neck, whether the wearer was sitting or standing. The width of shoulder and height of neck were beautifully regulated, and the production was so finished and complete, both in the matter of style and fit, as skilled hands could make it.

# Etiquette in Sweden.

In Sweden, if you address the poorest peasant or the chief personage of the day, next to the proprietor of the market, much of the buying these days is done without his aid. There is among the patrons of the market a belief, originating no one knows where, that it is cheaper to buy privately than under the hammer. So, instead of the whole interest of the place being centered in the bidding, much of it is scattered among the groups which discuss and speculate upon the possible merits and the apparent demerits of the animals.



BOSTON'S NEW SUBWAY JUST OPENED TO THE PUBLIC.