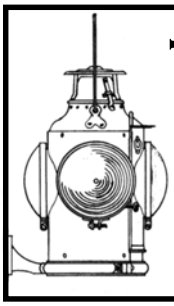

The Marker

The Official Newsletter of the
Alberta Pioneer Railway Association
Volume 22, Number 2

Three Early Canadian Transcontinental Railway Proposals

by Alan Vanterpool

Long before the Pacific Railway was proposed during the negotiations for British Columbia's entry into Confederation, the concept of a transcontinental railway had been put forward. This paper summarizes these proposals, and concludes with a précis of the contract between the Dominion Government and the Canadian Pacific Railway Company (CPR).

The first mention of a Canadian transcontinental railway appears to be that of Sir Richard Bonnycastle, of the Royal Engineers, in 1829. Since the first practical railway had only been demonstrated a few years earlier, on a small scale in Britain, this was a truly remarkable proposal.

In 1834, Thomas Dalton, a Toronto newspaper reporter, talked of an all steam route by river, rail, and canal from Toronto to the Pacific.

Nine years later, Torontonian John Smyth wrote numerous pamphlets, urging a line of steam communications around the world. The Canadian portion was to be a combined rail and water route. These ideas were not taken seriously.

But between 1848 and 1850, three works by separate authors, were taken more seriously:

1 Major Robert Smyth proposed an "Atlantic and Pacific" Rail way. His views were supported by several prestigious London newspapers. He thought the scheme would cost $700 million. His route was very similar to that later chosen by the Canadian Pacific Railway (CPR). It was to pay for itself by the traffic of colonists brought to the new land. The railway was to be built by convict labour.

2 Lieutenant Henry Synge, Royal Engineers, proposed a rail and waterway network across the continent. The proposal included a canal through the Rockies, incorporating many locks! Since Synge worked on the Rideau Canal at Ottawa he undoubtedly had locks on his brain! The network was to be built by the surplus unemployed in Britain.

3 These two ideas were amalgamated by F.A. Wilson (a former Hudson Bay Company employee) and A.B Richards, a London lawyer, in a 550+ pages book published in Britain. They would employ 20,000 convicts to break ground and build a rough grade, plus 60,000 surplus unemployed who would work for three years at soldier's pay. Their proposed route however, was a series of conjoined straight lines from Halifax to the Pacific Coast, which ignored the presence of lakes, rivers and mountains! At the conclusion of the construction the convicts were to be settled in Labrador!

In 1851 Allan Macdonell, a Toronto promoter, organized a company and applied for a charter to build a railway to the Pacific. This proposal was turned down by the Legislative Assembly of Canada on the grounds that the route of the proposed line crossed Hudson Bay Company lands. But it was the first transcontinental railway proposal to be specifically dealt with at the political level.

Then in 1857 the British Government set up a commission to enquire into the Hudson Bay Company (HBC) lands. As one might expect Macdonell appeared before the commission to push for opening up of these lands. But, perhaps more significantly, John Ross, President of the Grand Trunk Railway (GTR), also advocated a railway running from the Atlantic to the Pacific. This commission existed at a time when railway construction was booming in the United Canadas. Many leading politicians held large numbers of shares in railway companies, and several held both public office and were simultaneously board members of the railway companies.

A year later, the discovery of gold in British Columbia, must have accelerated thinking in favour of a transcontinental railway.

Consequently, it is no surprise that when Macdonell again applied for a charter in 1858, to link the navigable waters of the northwest, it was granted to him. However, his plan to combine steamers, railways and highways into a transportation system again came to nought because of the HBC.

However, times were changing and several prominent persons were pushing for a Pacific Railway. These included amongst many others, Joseph Howe (a prominent politician), Samual Cunard (of Cunard Steamship Company fame), and Edward Watkin (a future president of the GTR). Both the Canadian and British Governments began to take an interest in a possible transcontinental railway, and several expeditions were launched at the end of the 1850's to explore the HBC lands in this connection.

In 1860, Watkin suggested a "main through railway" from the Atlantic to the Pacific, using the Yellowhead Pass and staying as far north of the United States border as possible. The line would cross to Vancouver Island (presumably near the Seymour narrows) and terminate at Esquimalt.

Then in 1862, Sandford Fleming, appeared on the scene. He was already a respected railway civil engineer in Canada, and he studied the transcontinental railway question thoroughly. He drew up a work and cost sheet, and put forward a detailed plan for developing and constructing a railway. His ideas were published as *Practical Observations on the Constructions of a Continuous Line of Railway from Canada to the Pacific Ocean on British Territory*[4]. His concept was to first build a road, then a telegraph line, and finally to build a railway on the original roadbed. He estimated the

(RAILS continued on page 2)

Elsewhere In This Issue

(RAILS continued from Page 1)
cost at $100 million, and that it would take 25 years to build. The railway was to extend over 45º of longitude, or one-eighth of the distance around the world, and through a completely undeveloped area!

Also in 1862 Watkin proposed a transcontinental railway to be built under the auspices of the Imperial and Canadian Governments. However, the Canadian delegates withdrew when it became obvious that the Intercolonial Railway proposal took precedence. One year later, Watkin again proposed a "complete intercolonial railway" from the Atlantic to the Pacific. A prospectus was issued, in which the railway was to be executed with the aid and sanction of the HBC.

In 1863, GTR interests gained control of the HBC, and by 1869, two years after Confederation, the Company surrendered its lands to the Dominion Government. It did, however, retain five percent of the arable land on the prairies, but the HBC no longer inhibited plans for transportation corridors across the north-west.

Also in 1863, settlers in the Red River colony, petitioned the government for a rail connection, not only to the east, but to the west coast as well.

In 1865, Dr. John Rae, sponsored by the HBC, the Imperial and Canadian Governments and the GTR, made a trip through the Yellowhead Pass[5]. He surveyed the Pass for routes for a railway, wagon road and telegraph line.

In May 1869, the Union Pacific, Central Pacific and Western Pacific railroads were completed between Omaha, Nebraska (where there was a connection to the rest of the US railroad system), and the Pacific coast. This line, almost 2,000 miles long demonstrated that, with contemporary technology, a railroad could be built through the Rocky Mountains.

Therefore, when the representatives of the Crown Colony of British Columbia sat down with those of the Dominion Government to discuss entering Confederation, the proposal for a transcontinental railway fell on fertile ground. Thus, it was no surprise in 1871 that one of the conditions for joining was that a railway should be started by 1873, and completed by 1881, which would join British Columbia to the railway system in Ontario.

Surveys were immediately started under the supervision of Sandford Fleming. Fleming first went west in the summer of 1872. By 1873, the job was fully organized and was to continue until 1879. His crews studied 46,000 miles of lines on reconnaissance surveys, and 11,500 miles on fully recorded instrument surveys. All of this work was done in an area where each surveying team had to be supplied from eastern Canada, some of them across almost 3,000 miles of undeveloped land and unmarked waterways. The work was divided into three regions and 21 divisions. Eight hundred men were at work in the first season, and as many as 2,000 in later seasons. By 1879, Fleming made his recommendations for the route of the Pacific Railway. It was for a line to proceed north west from Ottawa, along the north shore of Lake Superior to Winnipeg, and thence across the prairies in a more or less straight line to the Yellowhead Pass, thence down the Thompson and Fraser Rivers to a terminal on the south shore of Burrard Inlet.

In 1872 Parliament decided that the railway should be constructed and operated by private capital, subsidized by the Government. The most logical candidate was the GTR, whose senior officials had already shown considerable interest in a pacific railway. However, when they were approached they turned the proposal down, saying that it "—— could not be built except at tremendous cost, when built it could not be worked successfully in winter, and if it could be worked would have no traffic to carry upon it." The Company was probably right in its views, but they were politically incorrect. This and other contemporary statements came back to haunt the Company around 1920 when the Dominion Government was looking for reasons to create the Canadian National Railway.

After a number of efforts by the Government to find a company to build the railway, a contract was awarded to Sir Hugh Allen of Montreal. Allen was the owner of the Allan Steamship Company. For reasons which needn't be gone into the project was discredited, Allen failed to form a company to build the railway, and the Macdonald Government fell in 1873, partly because of its financial involvement with Allen.

The new, Liberal Government, decided the project should be a public one and let Government contracts for construction. Work started south from Selkirk to the US railway system at the International Border, between Lake Superior (at Fort William) and Winnipeg (in 1875), and through the Fraser River Canyon (in 1879). Macdonald returned to power in 1878 and continued to control the project as a public effort. But in 1880, Parliament decided to revert to the project being a private one, subsidized by Government. A contract was then signed with the newly formed CPR, with the following major conditions:

- The Company was to be given $25 million in cash, 25 million acres of selected lands, plus all right of way through public lands
- The importation into Canada of all materials required to construct the railway to be free of customs duties
- The sections of railway built by the Government were to be given to the Company free of charge (excluding rolling stock) – about 700 miles of line had been/would be built at a cost of $30 million, but the Company had to spend a further $7 million or so to make them operable – this included 430 miles from Fort William to Selkirk, 230 miles at the Pacific end and some lines in Manitoba including one from Selkirk to the US Border
- Perpetual exemption from taxation by governments, at all levels, on all property and capital stock
- No line south of the CPR main line could receive a Dominion or provincial charter for 20 years except lines running in a south-west direction from the CPR line – this clause was rescinded in 1888 at the vigorous insistence of the Manitoba Government
- The CPR contracted to build 2,000 miles of line by 1891 and to work the line for at least 10 years after completion
- The standard of construction was to be that of the Union Pacific Railroad as it was in 1883
- The capital stock of the CPR was to be $100 million

As is well known, construction of the CPR was started in 1881, and the last spike was driven in, in November 1885.

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Our Thanks

To the many people who have contributed their time, money and artifacts to keep the Association and the Museum a living historical resource for Alberta and the world.

Monthly APRA Meetings - Spring Schedule

Meetings are usually held on the first Tuesday of each month in Room 112, Eastglen Composite High School, 11430 - 68 St., at 1900 hours. All members welcome. For further information, contact Hans Huizinga at (780) 473-9045.

APRA Board of Directors

Railroad Reprints

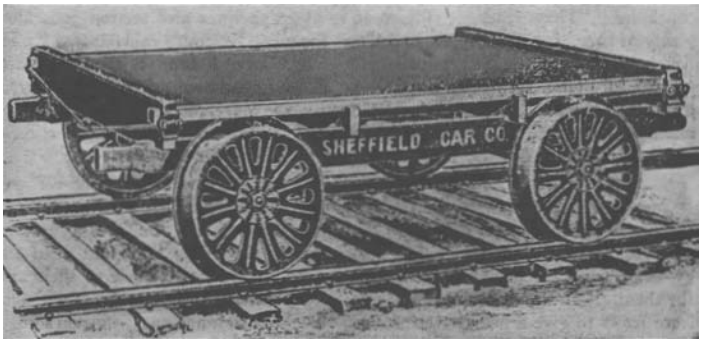
The Museum has acquired a large collection of old issues of Railroad Magazine. *As a service to its members, selections from these magazines will be reproduced from time to time in* The Marker.

Here is the concluding third part of an extended article from the March 1942 issue. Note that all original spelling and grammar is preserved.

Section-Car (Part Three)

by Bob White, Section Foreman, Grand Trunk Western; Secretary-Treasurer of Harmony Lodge 108, Brotherhood of Maintenance of Way Employes

LAST June the Wheeling & Lake Erie tried the stunt of using a section motor-car for a fantrip. This jaunt originated in the mind of Laird Myers, a member of the Eastern Ohio chapter of the National Railway Historical Society. W. A. Roderick, engineer of the W&LE Maintenance of Way and Structures department, deserves credit for making the arrangements. Thirty fans turned out for the time of their lives, scooting along the rails between Massillon and Orrville, Ohio, piled on a pop-car and a trailer.

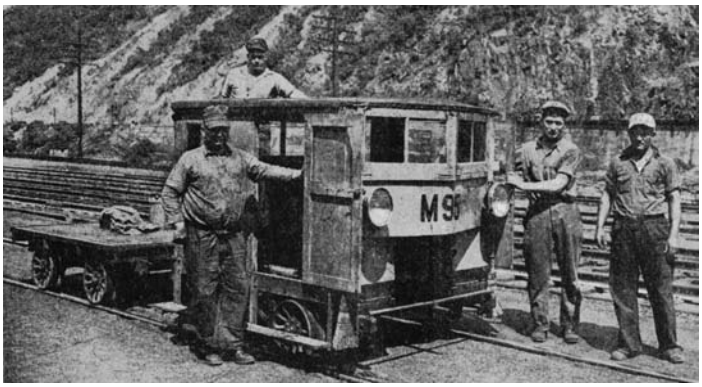


"Coupled behind a go-buggy, a push-car like this has many uses; the least agreeable, as our author relates, being that of a hearse"

Changing the subject: Two years ago one of my old GTW push-cars carried a "deadhead"—this time I use the word literally. The corpse of a poor tramp had been found along our right-of-way. Sheriff Murphy and the local coroner stopped me as I was speeding in from work. They didn't know how to get the body through the brush and swamp to the highway three miles away, but I solved the problem. All of my crew squeezed on the motor-car, while the two officers of the law rode behind on the push-car with their gruesome freight. I can't say I was sorry when the run ended.

Some old-timers didn't take so well to the motor-cars when they were first introduced. I heard of a foreman named Kelly Rogers, on the old Lawrence, Leavenworth & Gulf, who had plenty trouble with the speeders on the heavy curves in his section at Windfield, Kansas. He managed to get a couple of cars torn up by trains right off the reel. This made the roadmaster so mad that he put Kelly back on the hand-car.

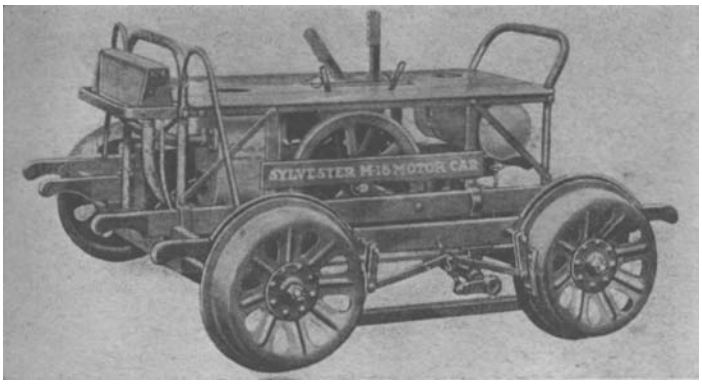
The king snipe got along fine for a year propelling his men in the traditional manner, and eventually figured he was ready for another pop-car. The Old Man was about ready to give him one, when Kelly disputed the right-of-way with a passenger train and got his


"Section-car de luxe: The Reading and the Jersey Central own several of these, used mainly for Bridge and Building workers who often make long trips in bad weather. Picture was taken at Mauch Chunk, Pa. The boys are proud of their detachable roomette. Note the track-sweeping brooms in front of the wheels"

handcar smashed. Then he brushed the cinders off his pants and started off afoot to get a push-car on which to tote the wreck back to town; but he had no sooner returned to the scene of the accident, loaded the pieces on the pusher, than along came the second section of the passenger train and slammed into the whole works.

The unlucky section boss had to report this occurrence. He just told his superior that the train hit the two cars at once while he was pushing the trailer ahead of the hand-car. This dodge got him off with only one slug of brownies for the two accidents. But, needless to add, Kelly didn't get the new motor he was after.

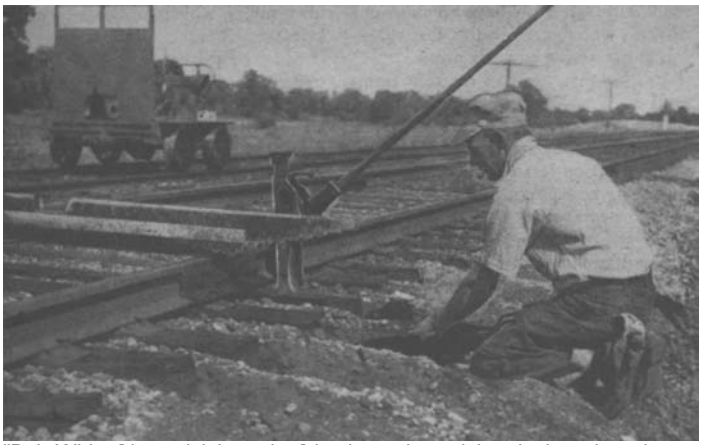
By 1908 the pop-car was rather widely used. The Chicago, Milwaukee & St. Paul was the first road to equip an entire supervisor's district with them. Of course, the innovation had one sour feature for maintenance men; it increased—in some cases, more than doubled—the length of the section for which they were responsible. But it was definitely less of a grind to patrol the enlarged section with modern, smooth riding vehicles than it had been back in the old days, bobbing up and down, to propel a hand-car over the track.



"The M-16, a lightweight Canadian pop-car, built by Sylvester Manufacturing Company of Lindsay, Ontario, uses the chain-and-sprocket drive gear"

Even though many roads frown on their employes skimming along the rails at more than twenty-five miles per hour, Hugh F. O'Neil of 2536 Lincoln Avenue, Ogden, Utah—an extra gang timekeeper on the Southern Pacific—tells me that motor-cars used on the Salt Lake Division of his road are capable of speeds as high as forty-five miles per hour.

These cars, a product of the Northwestern Motor Co., dubbed *Casey Jones*, are equipped with model T Ford engines. They will carry five to seven men, or haul six loaded trailers, at this speed. In accordance with the general practice throughout the continent, all section-cars on this division are equipped with wind-shields in winter time. These consist of a large board placed on front of the pop-car. On the smaller inspection cars the board is solid, but low enough for a man to peer over, while large extra gang cars have higher wind-breaks with a glass window in them.



"Bob White [the article's author] is shown here, 'shooting' modern ties on the Grand Trunk Western. Ballast is first removed from the ends of the ties. The track is then jacked up and fine stone slipped under it atop a thin blade. The latter is then withdrawn quickly, leaving ballast in place"

ANOTHER way in which the Espee's Salt Lake Division differs from most railroads in its method of operating section-cars. The average pike states in its book of rules that section bosses must never try to race a train. You see, the gasoline motor might fail, thus leaving the gandy dancers open for a ride clear through the Pearly Gates. Well, according to O'Neil, recent instructions issued by H. F. Elliott, roadmaster on the district, say that motor-cars on double-track territory must travel with the direction of traffic.

That doesn't mean that the king snipe might not have to remove his vehicle from the track in haste at places along the line where trains travel at high speed, but there is at least one stretch of rail on the division where speeders can run ahead of passenger trains without fear of being overtaken. On the trestle crossing Great Salt Lake, a length of twelve and a half miles, the passenger speed limit is twenty miles per hour and for freight drags, fifteen.

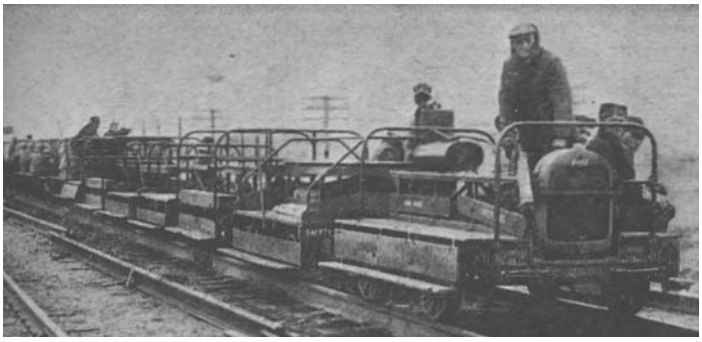
"On many occasions," says O'Neil, "I have seen motor-cars placed on the track with a passenger train a half mile distant, and the section crew run away from the train."

Now we come to the many concerns which manufacture section-cars. Among them is Fairbanks, Morse & Co., of Chicago, which, being a descendent of the old Sheffield company, claims the distinction of having built the first gasoline-driven section vehicle. Their products include all types of inspection and extra gang cars, mostly of the center-load type, which means that the engine is placed in the middle of the car. A platform covers the motor, while there is a running board on each side for the men to rest their feet on.

The Adams Motor & Mfg. Company of Chicago has specialized since 1909 in light inspection cars. Since this type of equipment usually carries but one man, their product is limited to side-load models. These have the motor on one side of the car, a platform over it, and only one running board—which, however, is large enough to accommodate a small supply of tools, several cans of kerosene or whatever materials are needed by signal maintainers, track bridge and signal inspectors, linemen, supervisors, roadmasters and division engineers who are the best customers for such cars.

One of the most exciting tasks the light speeders perform is rushing *speedermen* to forest blazes in the heavily timbered National Parks country out west. Speedermen are carefully selected men hired and trained by the U. S. Forest Service to cope with fires along the iron pike. They draw their pay from the railroad, which also provides them with fast motor scooters and plenty of fire-extinguishing chemicals.

In addition to being first-class smoke-eaters, these men must also undergo frequent examinations in the standard rulebook, just to make sure they know enough to avoid tangling with an extra train or otherwise hold up traffic with their speeders. The daring of these men, coupled with the speed of their doodlebugs, has saved lumber valued at millions of dollars.



"This [Union Pacific] section-car train hauled 250 laborers to location on a big track-renovating job"

Canada has its own purveyor of fine section-cars, the Sylvester Manufacturing Co. of Lindsay, Ontario. This outfit features ninety percent Canadian-made motor-cars with chain and sprocket drive instead of the conventional gear drive on their hand-cars.

THE Kalamazoo Railway Supply has manufactured section-cars since 1883, and their line embraces hand-cars, trailers, velocipedes, and a variety of speeders from one-man inspection vehicles, to cars with a capacity of thirty or forty passengers.

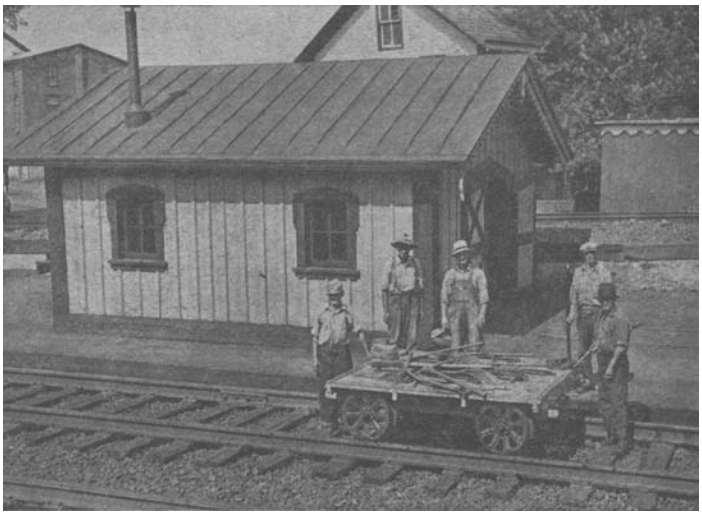
As an extra gang boomer I drove one of these Kalamazoo hump-cars for several summers on the Chicago Division of the "Big Valise." This type of car has the four-cylinder automobile motor which can whip up a good speed. Once, when the roadmaster was in a hurry to get from Belsey to Port Huron, I made a mile in fifty-seven seconds, with him doing the timing. Glancing at the rules, I notice that the speed limit for motorcars is something under half that, but since I've worked under four different roadmasters, it could have

(SECTION-CAR continued on Page 6)

(SECTION-CAR continued from Page 5)

been any one of them who figured in this fast ride—so I'm not giving anybody away.

Incidentally, I'm still ducking trains now with a six horsepower Fairmont Motor installed on a Kalamazoo frame. We often mix parts that way in repairing section-cars to save the expense of buying new pieces.



"The push-car or trailer truck is convenient for hauling tools - which normally are piled neatly, unlike those in the hastily-posed photo. It is equipped with a coupling device and may be attached to a motor-car"

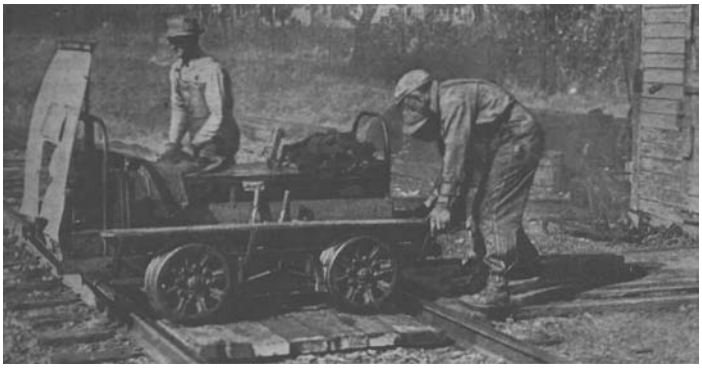
Motor-cars made by the Woolery Machine Company of Minneapolis come husky enough to pull a small work-train made up of trailers. All some of their larger section-cars need is a train crew and they could be put to work hauling pay freight.

Many a section gang used to get stuck out in the wastelands in a driving snowstorm when a drive belt got loose. Those troubles ended with the endless cord belt, good for 25,000 miles of uninterrupted service. The Fairmont Railway Motors, Inc., of Fairmont, Minnesota, pioneered in substituting this belt for the old laced affair. In addition, the modern motorcar is equipped with an idler pulley which can be adjusted to keep the belt taut at all times.

Some of the heavy-duty cars now in use are provided with their own turntables. This is an H-shaped device consisting of two strips of strong steel separated by another steel bar which holds them as far apart as the gage of the track. As the two parallel strips, which rest on the rails, are beveled at one end, while the other extremity tilts up in the air a couple inches, all we have to do is shove the pop-car or trailer on the turntable, lift one end of it a trifle so the two strips supporting the wheels assume a horizontal position slightly above the track lever, and swing her around on a swivel attached under the center bar of the H.

This is a far cry from the old-time hand-car which could easily be lifted off and on the tracks by one man. If my old friend Paul McGuire of Fairfax, Oklahoma, had been riding in one of those lumbering giants he would never have had a certain amusing adventure which he related to me some months ago. Paul, who is now a Santa Fe extra gang foreman, is known in boomer circles as "Milepost" McGuire. He got that way from leaving his tools at a milepost each night. On a certain fine day he happened to be working in one end of a big yard, when the Roadmaster ordered him to get some tools from the other side. Milepost crossed the "garden" all right, then loaded up his hand-car with the needed materials and started back.

Every yard goat in the place now seemed to be shoving freight cars around and Milepost was scared of being bawled out if he came back late. So he decided to return via an abandoned interurban track through the main street of the town. At a point where the disused rails crossed the big pike he transferred his hand-car. Pumping up and down along the city thoroughfare, the railroader attracted a lot of attention from shopkeepers and pedestrians. In many places the trolley flangeways were filled with asphalt so he had to walk and push the vehicle before him.



"Illinois Central buzz-wagon being set on the rails at Seward, Illinois, by 'King Snipe' Alfred Schere and two of his men"

However, Milepost got the tools back to the boss in ample time. But the next day he was quite surprised to open the *Evening Courier* and spot an item stating that an official party had inspected the interurban route prior to rehabilitating the abandoned line.

MY DAILY work as a king snipe qualifies me more or less to rattle on about section-cars, but I figured that the write-up should contain some anecdotes from old-time rails; so I inserted a request in the *Brotherhood of Maintenance of Way Employes Journal*. Among those who answered was A. C. Wiggs, Mapleton, Iowa, a former C&NW section foreman.

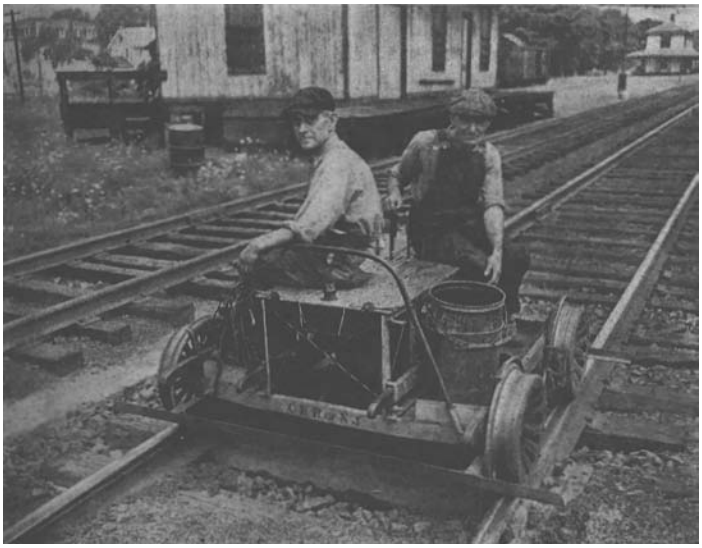
Mr. Wiggs chuckles as he recalls a bit of jollity which occurred on the C&NW when he was still a gandy dancer. He was out on the line with two other fellows who started cutting up on the hand-car. They were working the handle, while Wiggs rested.

Suddenly, when they were crossing a bridge, the two loons gave the handle such a jerk that the car jumped the track, throwing all three men down twelve feet to the water. Wiggs got to his feet first and looked up to see a train coming toward the hand-car. He dashed up on the trestle and flagged the engineer, preventing what would probably have been a more serious accident.

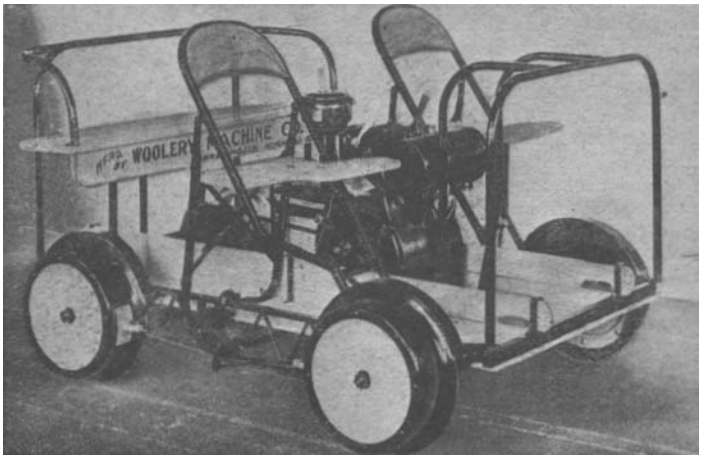
Yes sir, they had lots of fun with hand-cars in the old days. But as I ride my smooth-running speeder— equipped with self starter, headlights, and an electric horn—I must confess that I don't exactly yearn for those bygone times. And yet I'll never be satisfied with all the improvements they've made in section-cars until they come across with one more. Riding those old hand-cars in sub-zero weather wasn't much fun but at least the exertion kept a man's

blood moving. Now we just sit there and freeze.

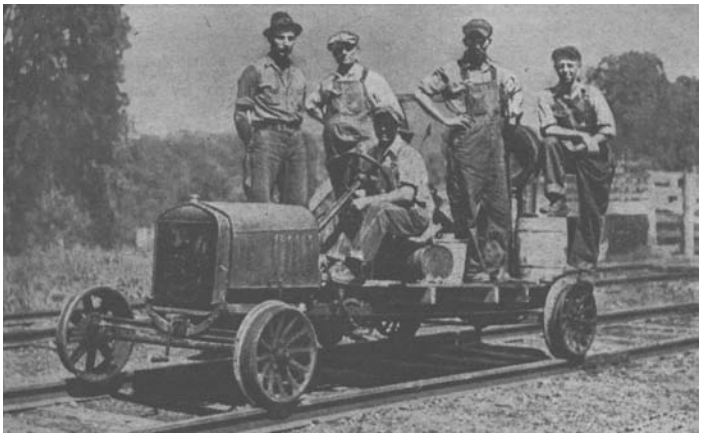
I've asked the roadmaster about getting a heater installed on my pop-car. It seems he doesn't believe in pampering his railroaders. But maybe some day they'll get around to it. Right now there's no such device on the market. So put on your sheepskins, boys—we've got to go over the track.



"Lightweight motor-cars, such as this type on the Jersey Central, are designed for two-man welding outfits or other small crews. Observe the safety bar in front of the wheels, to guard against capsizing if the car is derailed"



"Neat as Junior's new 'Irish Mail', this four-man car is speedy and easy to handle"



"The Reading's 243 is a good example of a heavy motor car. It regularly pulls a light trailer on which tools are transported"

ABOVE: "Ever see a two-foot-gage hand-car? This one ran on the now abandoned Bridgton & Harrison. The photo was made on a Railroad Enthusiasts' fantrip"

LEFT: "Ford-powered doodlebug, built and run by Grand Trunk Western men of the Iona, Laurel and Saranac sections, is employed for weed-removing and sod-cutting"