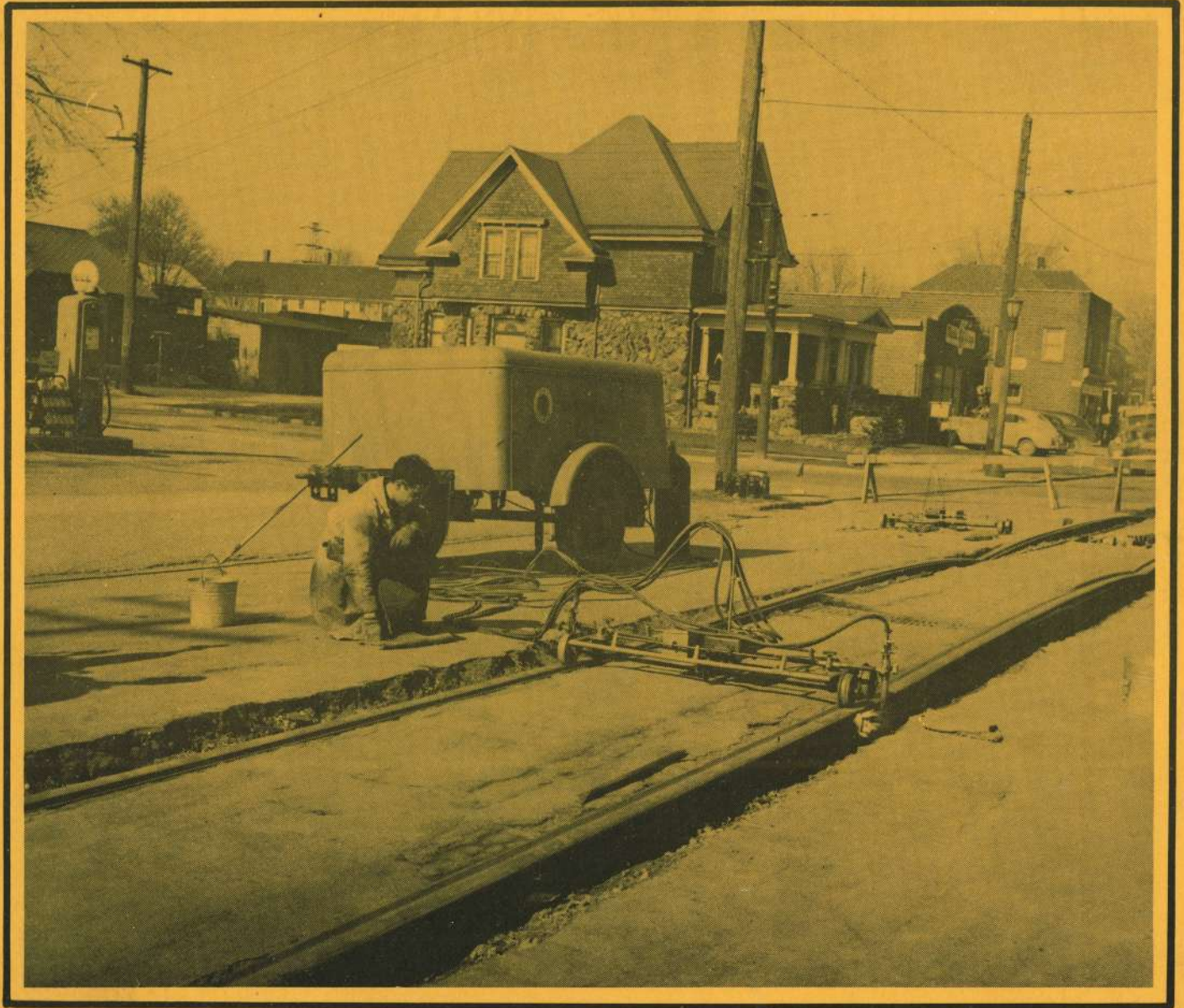


RAIL BURNING



Continuous High Speed Burning with Oxy-Acetylene Cutting Machine.

Kerrio's Welding Works
NIAGARA FALLS, ONTARIO, CANADA

The Modern Method of Street Car Rail Removal

By Oxy-Acetylene Cutting



With the ever-increasing pace of modern living, old-fashioned systems have had to give way to modern ones, with complete disregard for any sentimental attachments. In towns and cities throughout the United States and Canada where trolleys have been discontinued, the task of removing the rails left in the streets presents a serious problem. Progressive citizens, proud of their municipality, have maintained their streets in good repair. To rip up the whole rail which would carry with it large pieces of pavement, means the ruin of a good roadbed and the loss of thousands of dollars spent in their repair throughout the years. Their removal by Oxy-Acetylene cutting is without doubt the most efficient method. The procedure evolved at Niagara Falls, Ontario, represents the most modern-minded approach yet devised.

Kerrio's Welding Works successfully removed the street car tracks by Oxy-Acetylene cutting in Niagara Falls and St. Catharines. We have operated in the Niagara Peninsula for over 30 years, having considerable experience in the varied methods of Oxy-Acetylene cutting, fabricating and employment of welding and cutting methods to Industry. In tackling the problem of rail removal we have kept foremost in mind, low cost, an absolute minimum disturbance to the existing roadbed and speed in cutting to facilitate the movement of traffic on busy city streets.

REMOVAL PROCEDURE:

1. Excavating small trench on outside of rail, removal of rubble and preparation of rail for burning. (Figures No. 1 to No. 8).
2. Burning ball from rail and removal of steel. (Figures No. 9 to No. 20).
3. Asphalt Paving. (Figures No. 21 to No. 24).

The following illustrations clearly show how the various operations were performed and how closely one followed the other. In order to speed up the movement of traffic in the business areas the asphalt paving followed immediately behind the cutting equipment. The volume of business on these streets remained practically the same.

Our method, as proven in Niagara Falls, means a saving of approximately 50 per cent over any other scheme of rail removal and a salvage of 65 per cent of the steel rail. The reinforcing quality of the remaining steel is a decided advantage in so far as it gives greater strength to the portion of road in which it is imbedded.

Yours truly,

KERRIO'S WELDING WORKS.

Commendation from City Manager, Niagara Falls

In the spring of 1948 the City of Niagara Falls decided that it was advisable to remove the street car rails from the main business streets of the City and gave careful consideration to the most advantageous method of proceeding with the work. The track, as constructed, consisted of three inches of crusher-run stone, six-inch concrete track slabs, one-half to one inch of stone dust, six-inch wooden ties, nine-inch rails, a concrete slab was poured from the bottom of the ties to within two inches of the top of the rail; two inches of sheet asphalt was placed on the top of the concrete slabs to the top of the rail. There were six tie rods for each 52-foot length of rail. The rails were thermite welded and angle bars were only used on special work at switches and diamonds and at a number of intermediate points where repairs had been made since the original construction of the roadbed. Tenders were called for, providing for burning off the top three inches of the rail and thus not disturbing the base of the track structure. Alternative bids were accepted for the complete removal of all ties and rails.

The tenders received indicated that the cost of burning off the top of the rails and then resurfacing the track allowance with sheet asphalt was very much cheaper, and the estimated time for the completion of the work much less than the complete removal of all track material. As Niagara Falls enjoys a very large tourist trade, it was considered advisable to have all main thoroughfares opened for traffic as soon as possible. As a result the tender of Kerrio Welding Works to excavate a trench adjacent to the outer face of each rail and to burn off the top three inches of rail was accepted. Work commenced on April 26th, 1948 and Kerrio Welding Works completed their contract on June 16th, 1948, which was ten days ahead of schedule.

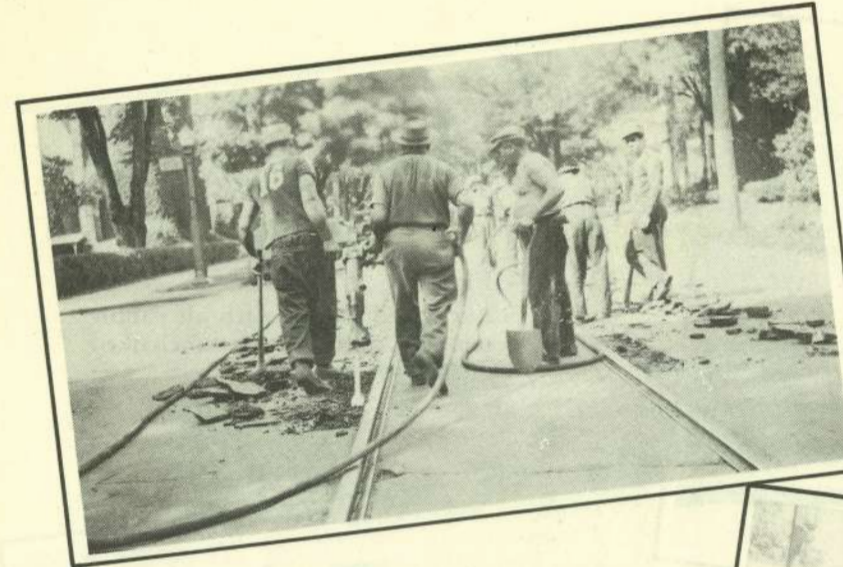
The track removed was the equivalent of 26,544 feet of single track, or over 53,000 feet of rail.

The work was well organized by Kerrio Welding Works who were responsible for the excavation of a trench to permit burning; clearing rail surface and burning off the top three inches of the rail. The scrap rail was removed each day as work progressed and the City of Niagara Falls Street Department employees placed asphalt binder in the trenches. The specifications provided that not more than 800 feet of street could be closed to traffic at any time due to the work. Although certain leeway was granted to the contractor, there was a minimum of disturbance to business and the main business areas were open for business during every week-end while the work was being carried on.

I consider it a privilege to commend the organization of, and the execution of the work by Kerrio Welding Works, and consider that they carried out a novel job in a very satisfactory manner.

W. S. ORR,

City Manager and Engineer.



← Fig. 1.
Showing Workmen Starting to
excavate trench.

Fig. 2. →
Work progressing on Trench
excavation.



← Fig. 3.
Removing paving brick which
are used in place of asphaltic
pavement in some localities.

Fig. 4. →
Trench completely excavated on
one side only, of each rail.





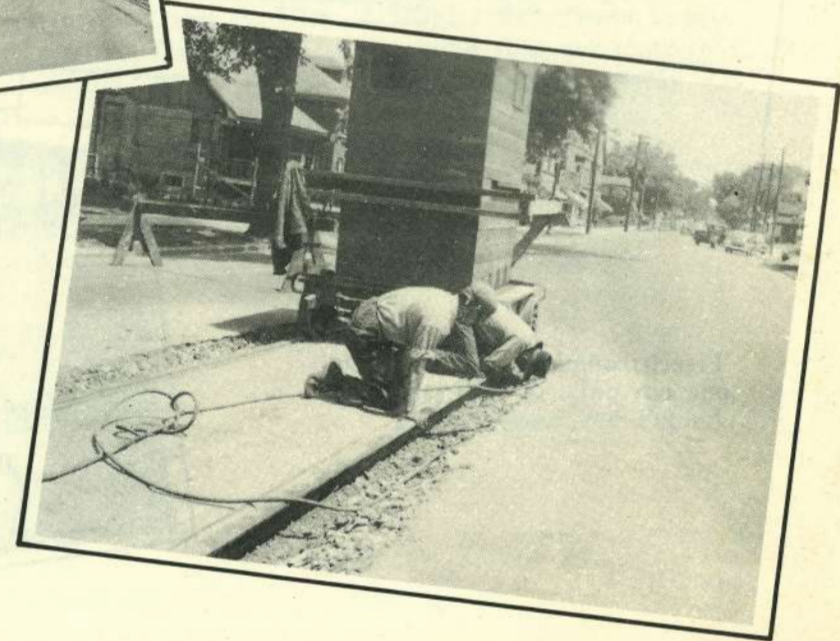
Fig. 6 →
Paving crew preparing road bed for binder course to be laid immediately after removal of rail.



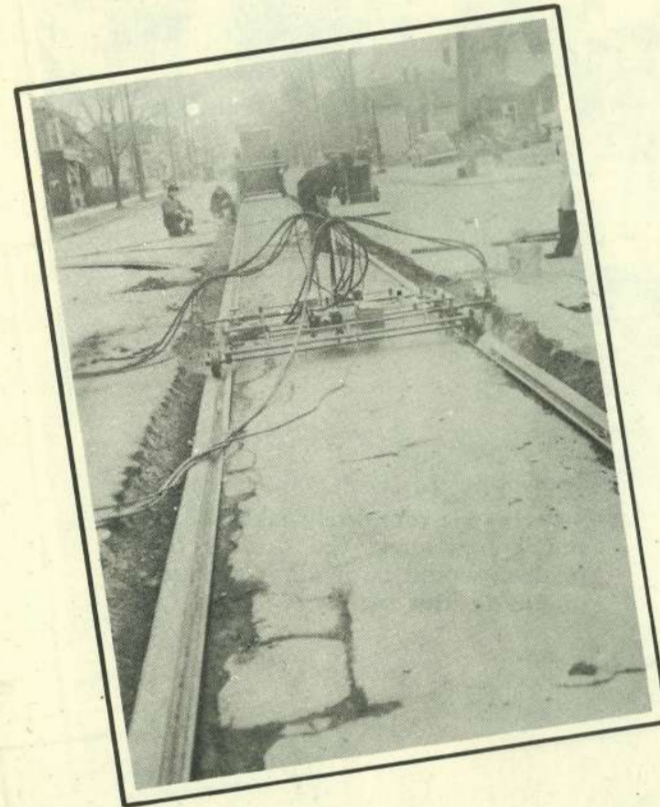
← Fig. 5.
Excavated trench with all rubble removed and line of cut chalked on side of rail.



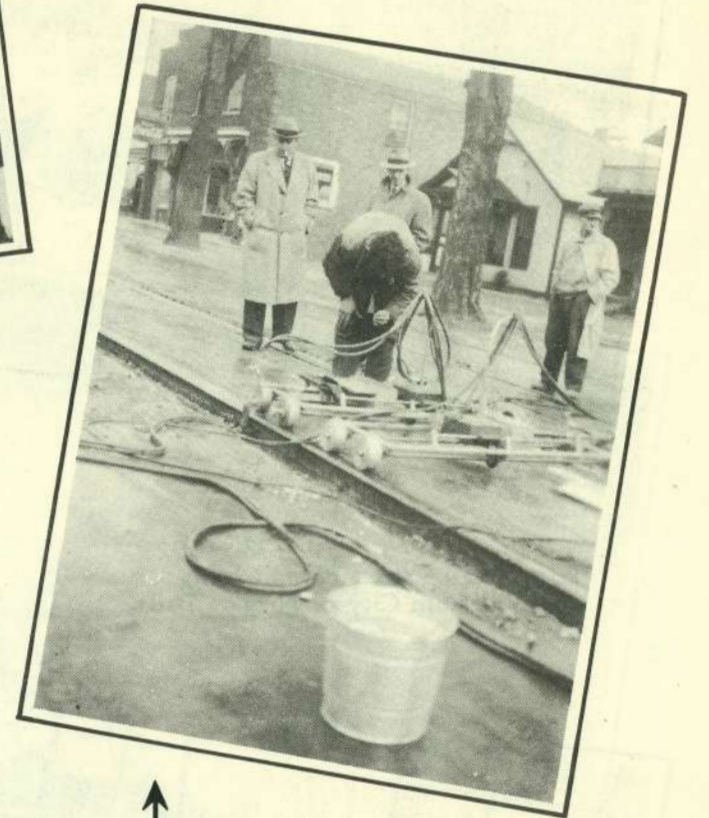
Fig. 8. →
Close-up of rail preparatory to burning.



← Fig. 7.
General view of men preparing rail for burning.



↑ Fig. 11—Rail Burning machines in operation.



↑ Fig. 10—City Manager, W. S. Orr, B.Sc., O.B.E., and Alderman A. J. McKinley of Corporation City of Niagara Falls, inspecting operation of Rail Burning machines.



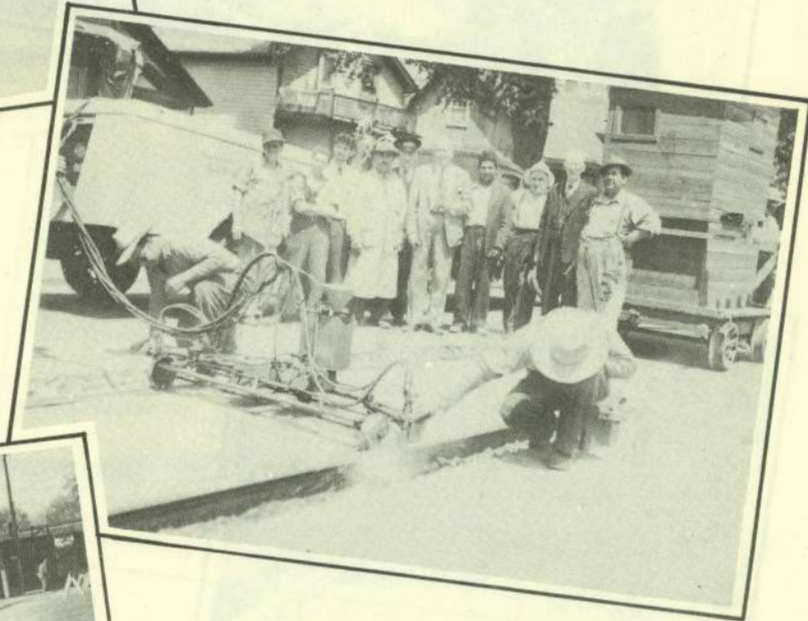
Fig. 12. →
General view of burning operation.

← Fig. 9.
Outlet boxes needed to furnish electrical power to drive cutting machines.



← Fig. 13.
Showing cutting operation on
curved track.

Fig. 14. →
Last piece of street car rail being
removed from City of Niagara Falls.



← Fig. 15.
Switches are completely taken up. This
shows how great the damage to the
roadbed would be if all track were re-
moved in this manner.



Fig. 16. →
Switches being loaded for salvage.

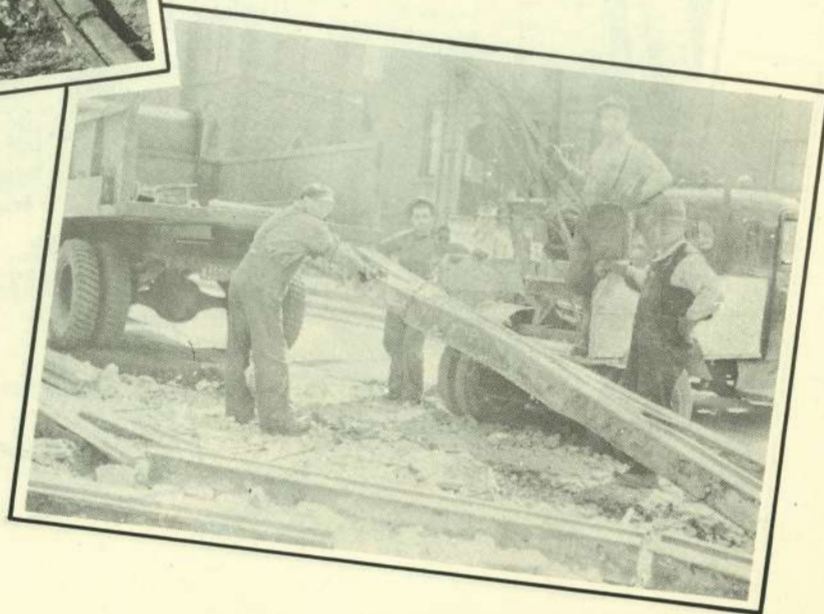
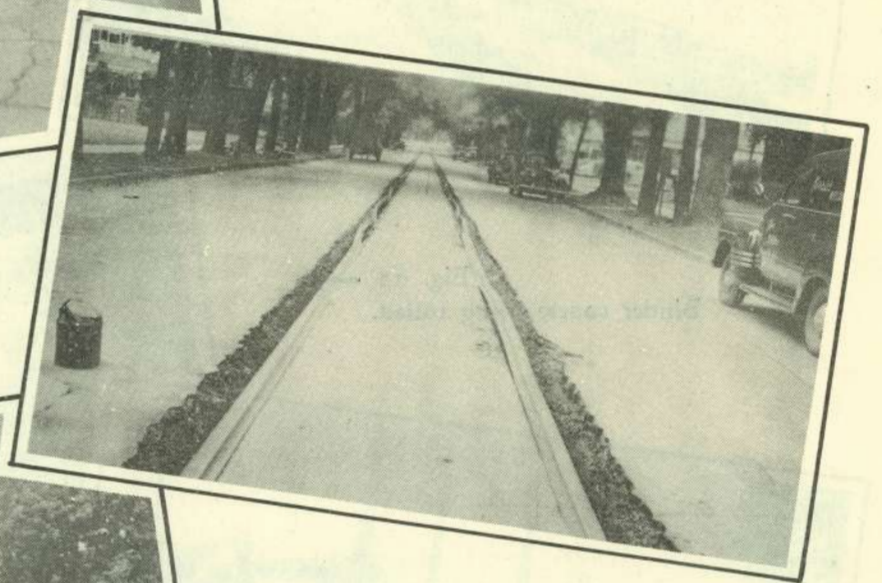


Fig. 18. →
General view of burnt rail.



← Fig. 19.
Rail cut to scrap length and re-
moved from trench.



Fig. 20. →
Binder course in place and rolled.
In congested areas traffic was
routed over same before wearing
surface was put down.



← Fig. 17.
Section of burnt rail prior to
cutting to scrap length and re-
moving from trench.



← Fig. 21
Binder course in place around
switch.

Fig. 22 →
Binder course being rolled.

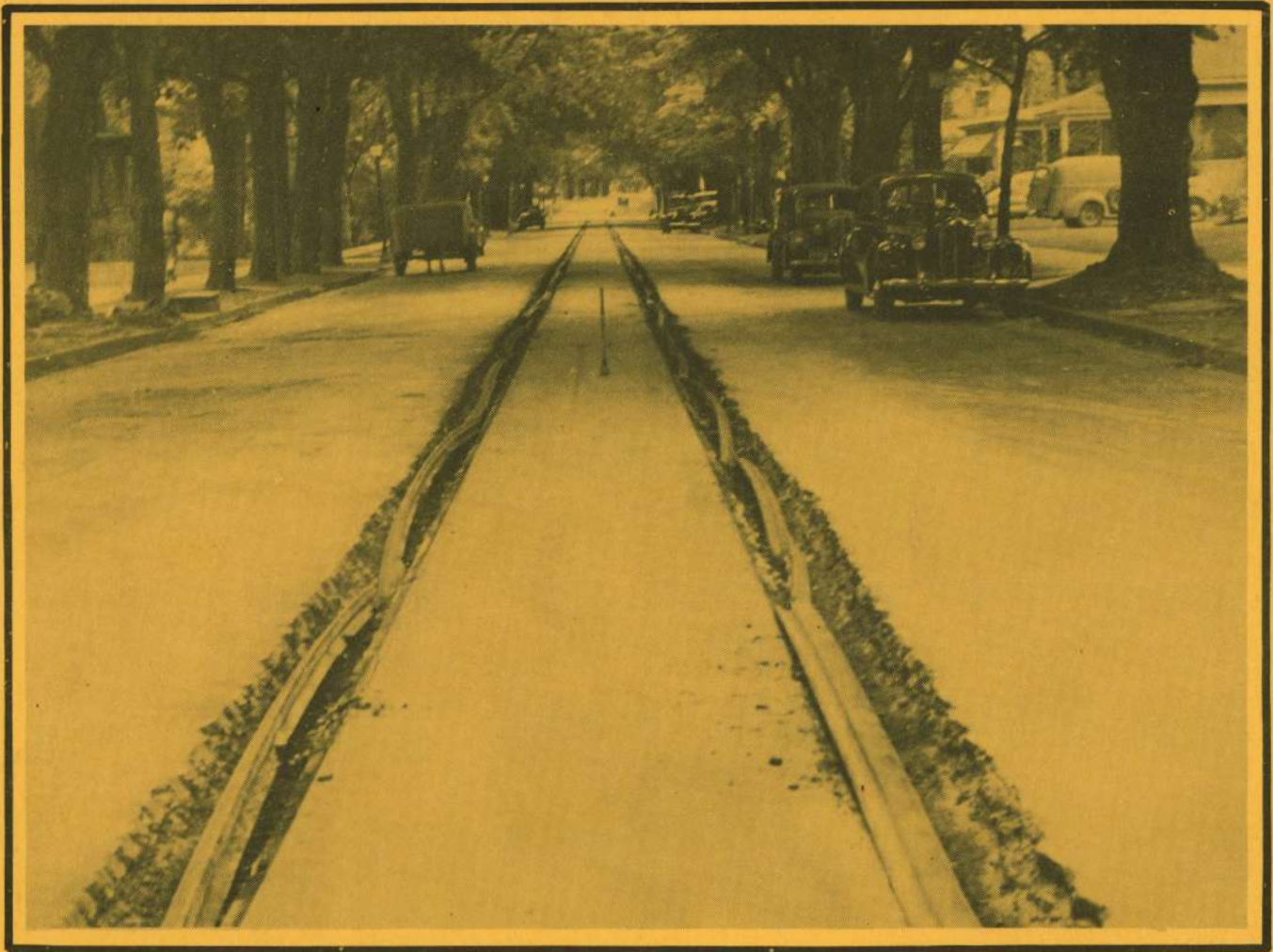


← Fig. 23.
Wearing surface in place.



Fig. 24 →
Wearing surface being rolled and
feathered out to complete paving.





Write us today for further information. Our representatives are available to discuss your street car rail removal.

KERRIO'S WELDING WORKS

612 BUCKLEY AVENUE
NIAGARA FALLS, ONTARIO, CANADA

ELECTRIC ARC — OXY-ACETYLENE — INERT ATMOSPHERIC ARC WELDING — SHAPE CUTTING